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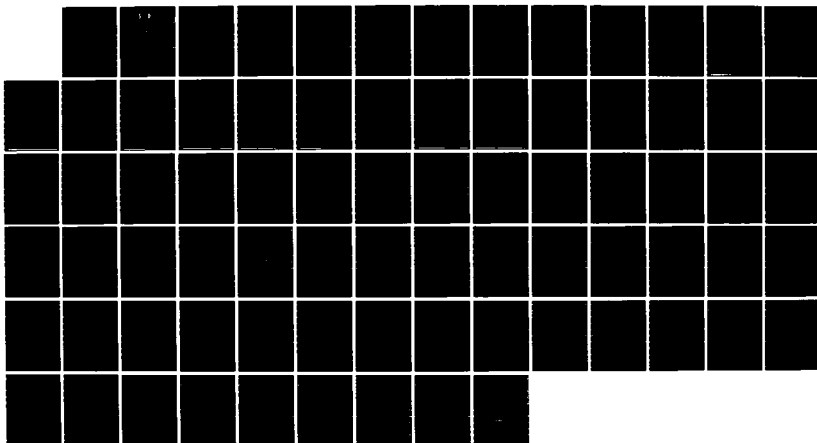
OCEAN CONSTRUCTION PLATFORM SEACON TRIM AND STABILITY
STUDY(U) NAVAL FACILITIES ENGINEERING COMMAND
WASHINGTON DC CHESAPEAKE DIV 03 MAY 80
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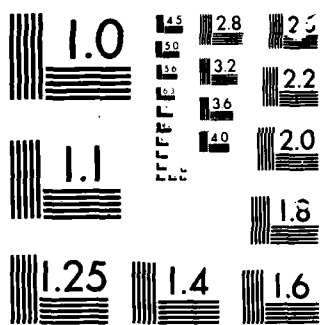
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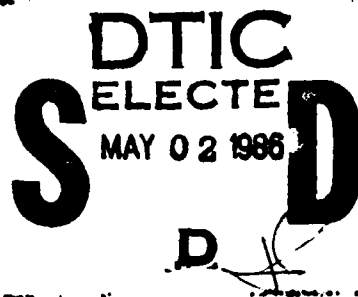




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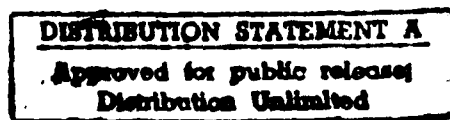
AD-A167 479

OCEAN CONSTRUCTION PLATFORM "SEACON"

TRIM & STABILITY STUDY

PREPARED BY:
J. J. HENRY CO. INC.
3-1-75

UPDATED BY:
GIANNOTTI & ASSOC., INC.
3-5-80



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SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION

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2b. DECLASSIFICATION/DOWNGRADING SCHEDULE

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FPO 8026

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J.J. Henry Co. Inc.
updated by
Giannotti & Assoc.

7a. NAME OF MONITORING ORGANIZATION
Ocean Engineering
& Construction
Project Office
CHESNAVFACEGCOM

6c. ADDRESS (City, State, and Zip Code)

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BLDG. 212, Washington Navy Yard
Washington, D.C. 20374-2121

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Ocean Construction Platform "Seacon" Trim & Stability Study

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FIELD GROUP SUB-GROUP

18. SUBJECT TERMS (Continue on reverse if nec.)
Seacon, Barges

19. ABSTRACT (Continue on reverse if necessary & identify by block number)
An update of the trim and stability study of the Ocean Construction Platform
(Seacon) performed 3-1-75 has been updated and is included in this report. A
new GM was arrived at by calculating all additions, removals and changes
performed on the ship since the first study. A list of these changes (Con't)

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT SAME AS RPT. 21. ABSTRACT SECURITY CLASSIFICATION

22a. NAME OF RESPONSIBLE INDIVIDUAL
Jacqueline B. Riley
DD FORM 1473, 84MAR

22b. TELEPHONE 22c. OFFICE SYMBOL
202-433-3881

SECURITY CLASSIFICATION OF THIS PAGE

BLOCK 19 (Con't)

is included in the appendix.

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WEIGHT CHANGES SINCE 3/11/75	
BLANK LOADING CONDITION FORMS	

INTRODUCTION

An update of the trim and stability study of the Ocean Construction Platform "Seacon" performed 3-1-75 has been updated and is included in this report. A new GM was arrived at by calculating all additions, removals and changes performed on the ship since the first study. A list of these changes is included in the appendix.

What are they



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DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

NAME OF COMPANY NAVAL ENGINEERING COMMANDJ.O. No. 1736SHEET No. 1 OF 1DATE 4-4-75COMP. BY VRG C.K'D BY PROJECT TRIM & STABILITYREVISIONS

- 1
4-4-75
1. LIGHT SHIP WEIGHT HAS BEEN REVISED TO INCLUDE STRAPS ON DECK AND BOTTOM DUE TO SECTION MODULUS REQUIREMENT, RELOCATION OF AFT PROPULSION UNITS TO FR 26 AND INSTALLATION OF TWO ANTIROLLING TKS.
 2. TANK CAPACITIES WERE MODIFIED TO SUIT PROPULSION RELOCATION AND ANTIROLLING TANKS ARRANGEMENT. SLUDGE TANK IS EXTENDED FROM FR 14 TO FR 15 1/2 (P).
 3. TRIM & STABILITY AND CURVES OF STATICAL STABILITY WERE REVISED ACCORDINGLY TO REFLECT THE ABOVE CHANGES.

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permit full reproduction.

J. J. HENRY CO., INC.

Naval Architects and Marine Engineers

NAME OF COMPANY NAVAL ENGINEERING COMMAND

J.O. No. 1736

SHEET No. 2 OF

DATE 4-4-75

COMP. BY VRG C.K'D BY

SUBJECT TRIM & STABILITY

NOTES:

1. HYDROSTATIC CURVES AND CROSS CURVES OF STABILITY ARE CALCULATED BY COMPUTER BASED ON THE INPUT TAKEN FROM LINES PLAN (REF. 3) AFTER CORRECTED FOR CENTRAL WELL AND SKEGS.
2. CURVES OF STATICAL STABILITY WERE CALCULATED BY COMPUTER USING "SHIP CHARACTERISTICS NAVY'S PROGRAM", AFTER DISPLACEMENT AND CENTERS OF GRAVITY HAVE BEEN CORRECTED FOR WELL.

REFERENCES:

- | | |
|----------------------------|---------------------|
| 1. DWG. No. 1736-100-1 | GENERAL ARRANGEMENT |
| 2. DWG. No. 1736-100-2 | GENERAL ARRANGEMENT |
| 3. YF 614-S0500-480780 | ALT. 5 |
| LINES & CORRECTED OFFSETS. | |

J. J. HENRY CO., INC.

Naval Architects and Marine Engineers

NAME OF COMPANY NAVAL ENGINEERING COMMAND
TRIM & STABILITY

J. O. No. 1736
 SHEET No. 3 OF
 DATE 4-7-75
 COMP. BY PAO C.K'D BY

SUMMARY OF CONDITIONS

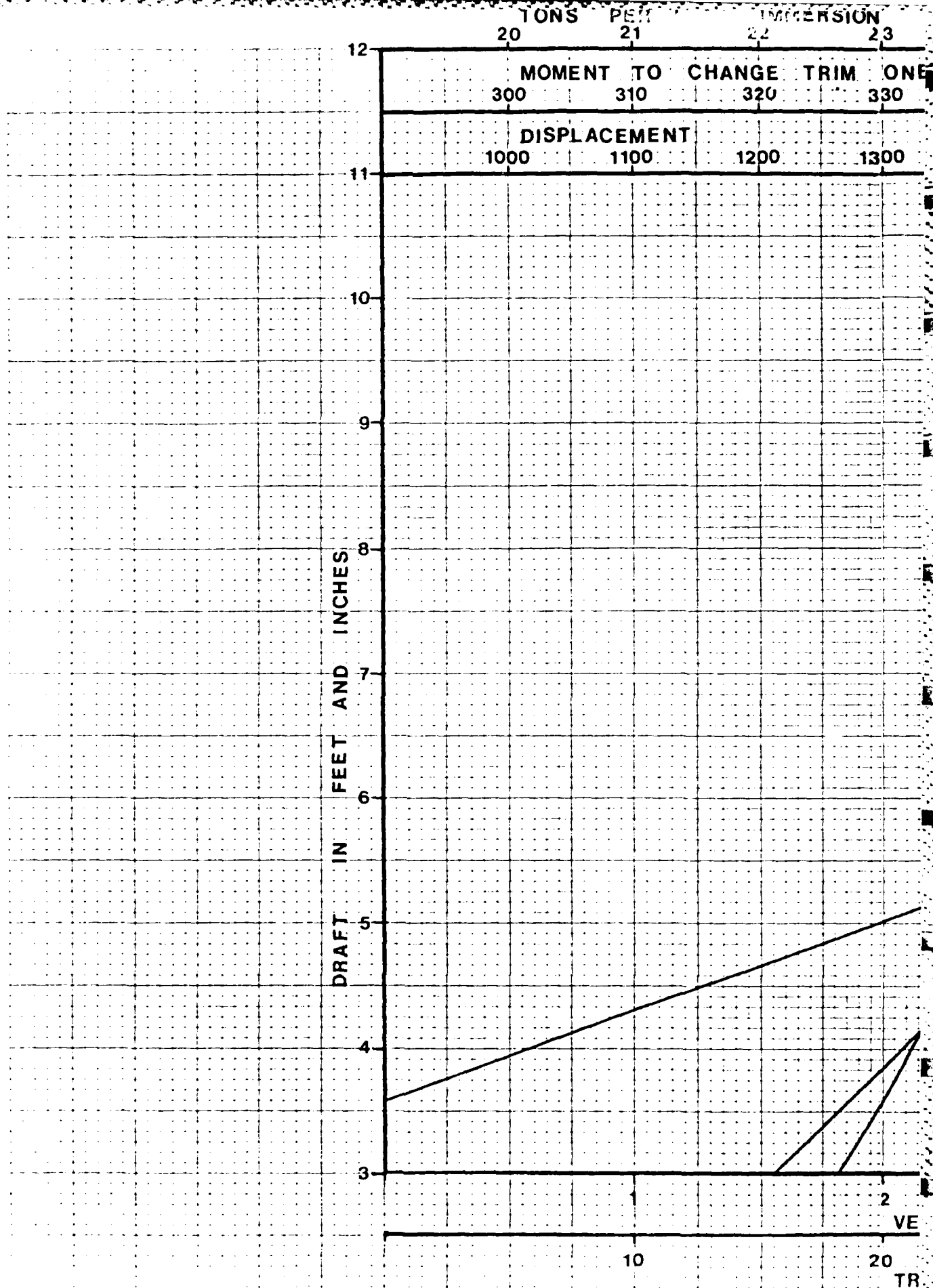
CONDITION	DISPL. (TONS)	DRAFT (FT)	SW BALLAST (TONS)	GM (FT)	TRIM (FT)
LIGHT SHIP	1459	5.57		21.90	0.26
CAPACITY	3462	12.16	1531.5	11.15	1.30
FULL LOAD	2414	8.78	<u>113.0</u>	13.24	0.11
OPERATING IA	2153	7.93	301.4	14.59	2.40
OPERATING IIA	2790	9.98	1080.3	13.09	5.25
OPERATING IIIA	2990	10.63	1080.3	11.63	7.48
OPERATING IB	2817	10.08	966.0	12.72	2.00
OPERATING IC	2650	9.54	799.0	12.38	1.33

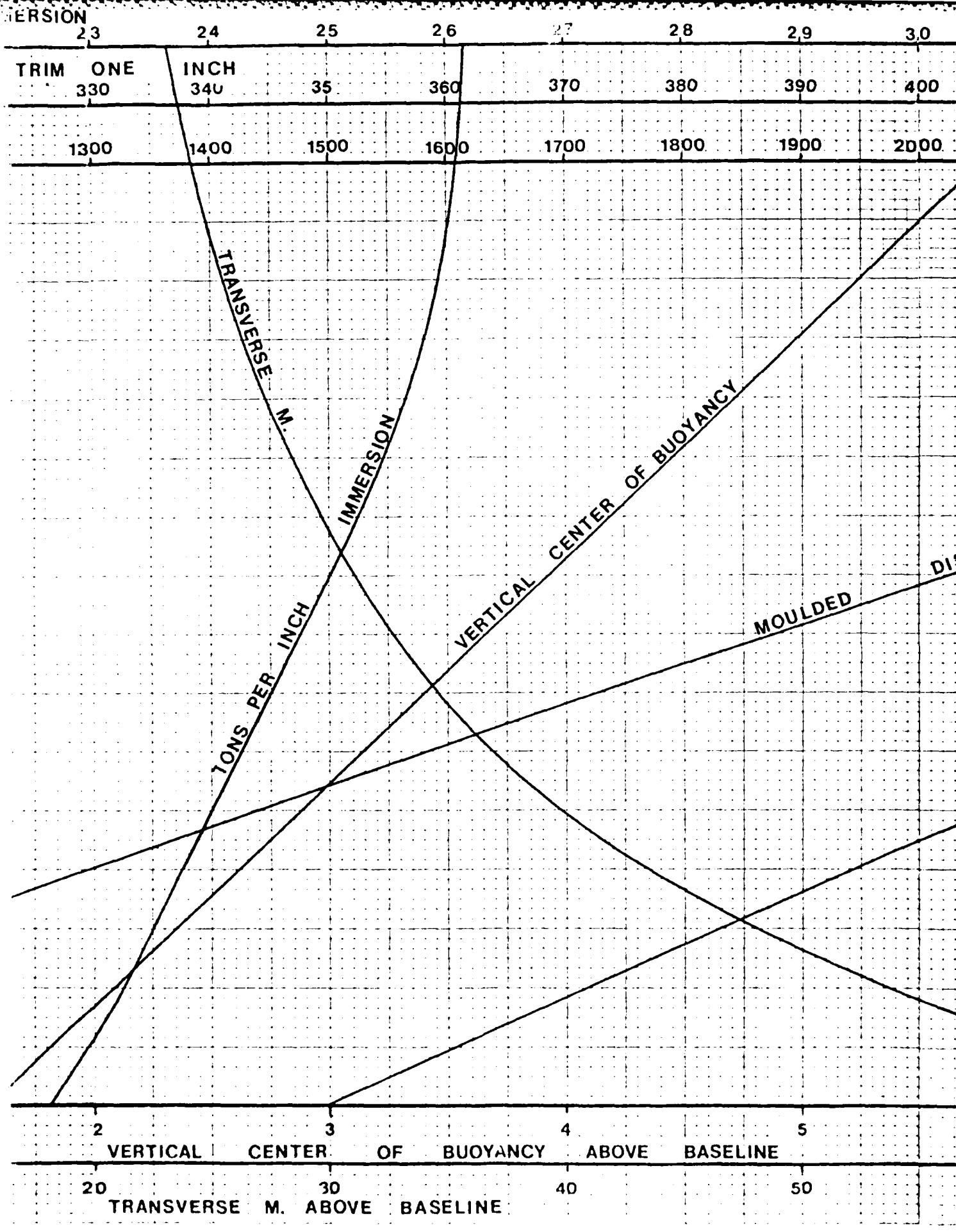
NOTES:

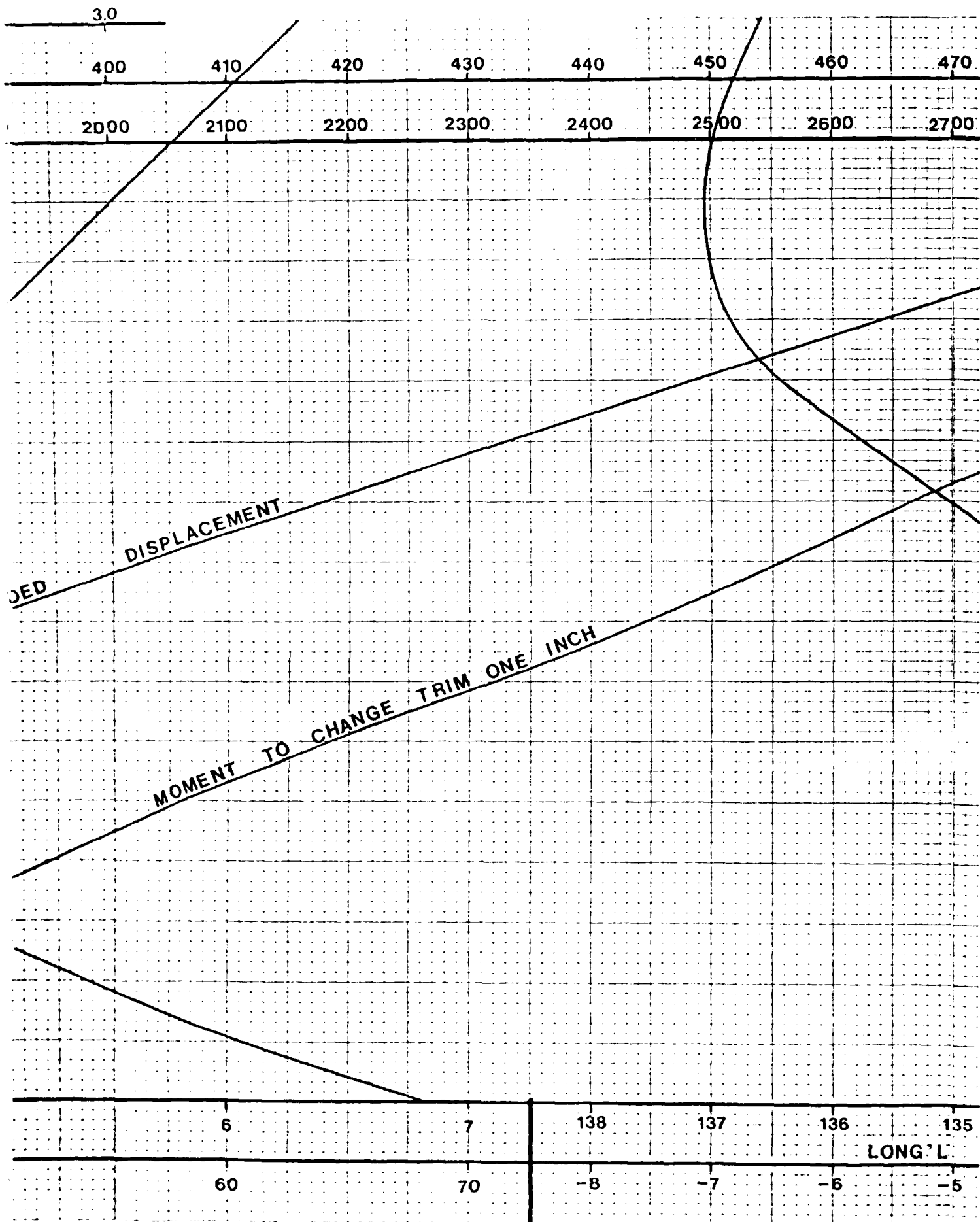
1. ANTI-ROLLING TANK HAS BEEN INCLUDED FOR ALL CONDITIONS
2. CRANE STOWAGED AT FR.22 FOR OPERATING CONDITION IIA
3. 200 TON BUOY ON DK. FOR OPERATING CONDITION IIIA
4. FOR OPERATING CONDITION IIIA, TRIM IS TAKEN FROM CURVE OF STATICAL STABILITY CALCULATION.

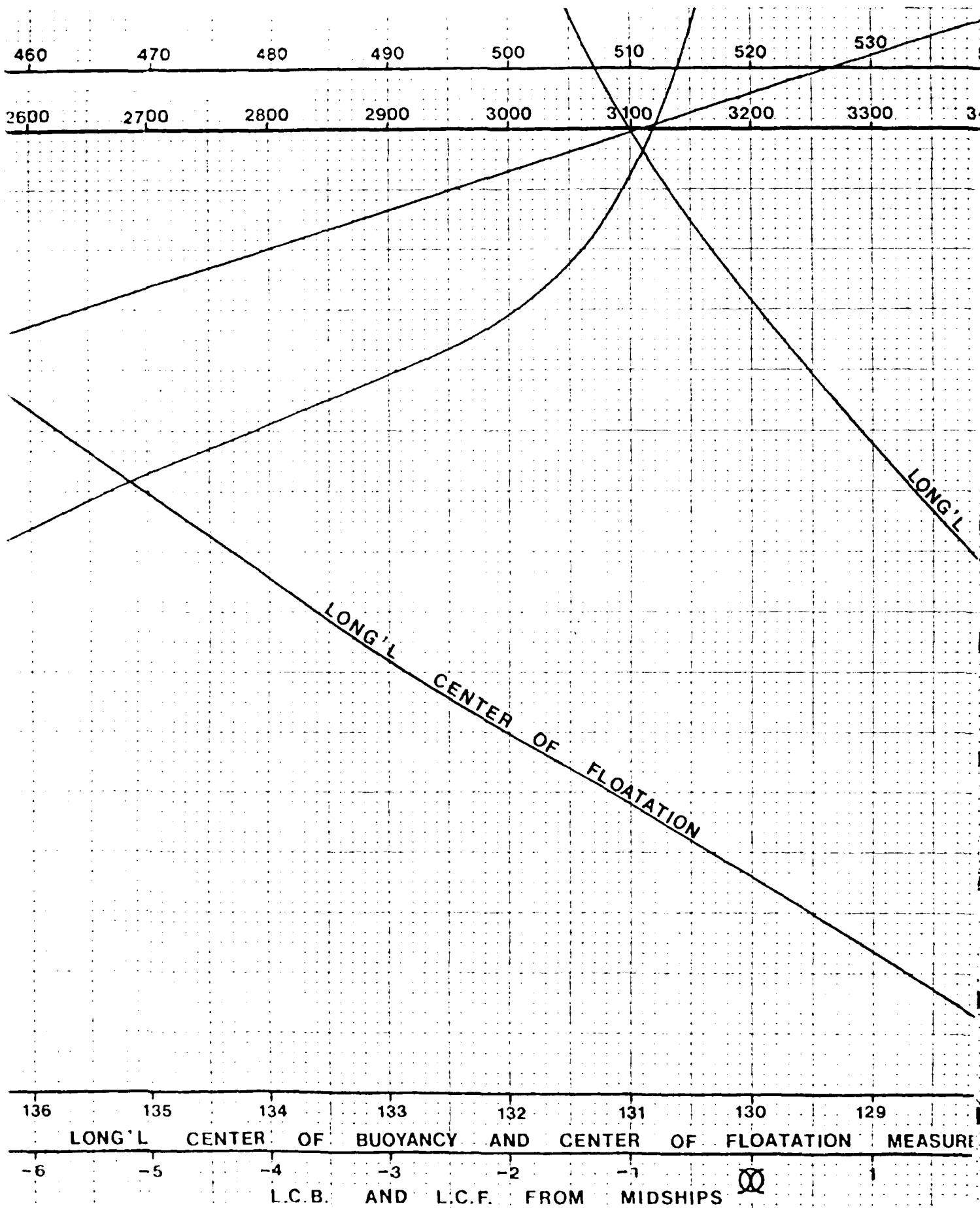
46 1930

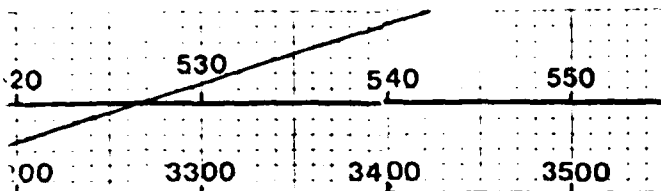
K-E







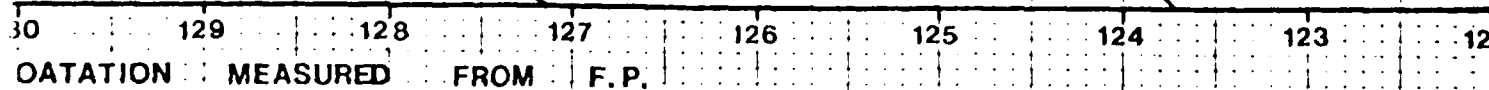




HYDROSTATIC CURVES
FOR
OCEAN CONSTRUCTION PLATFORM
"SEACON"

L.B.P. 260' 0"
BREADTH 48' 0"
DEPTH TO MAIN DK. 15' 0"

LONG'L
CENTER OF BUOYANCY

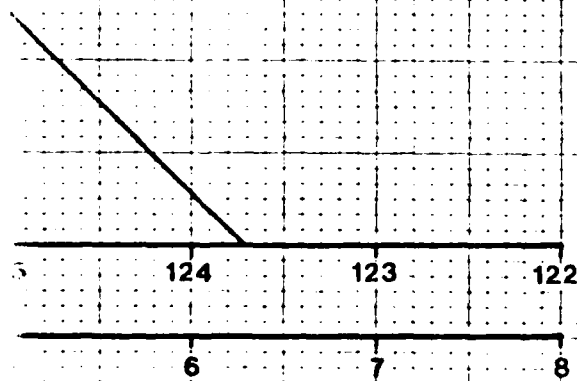


STATATION MEASURED FROM F.P.



ATIC CURVES
FOR
STRUCTION PLATFORM
ACON"

1 260' 0"
TO MAIN DK. 48' 0"
15' 0"



RIGHTING ARM IN FT

16

14

12

10

8

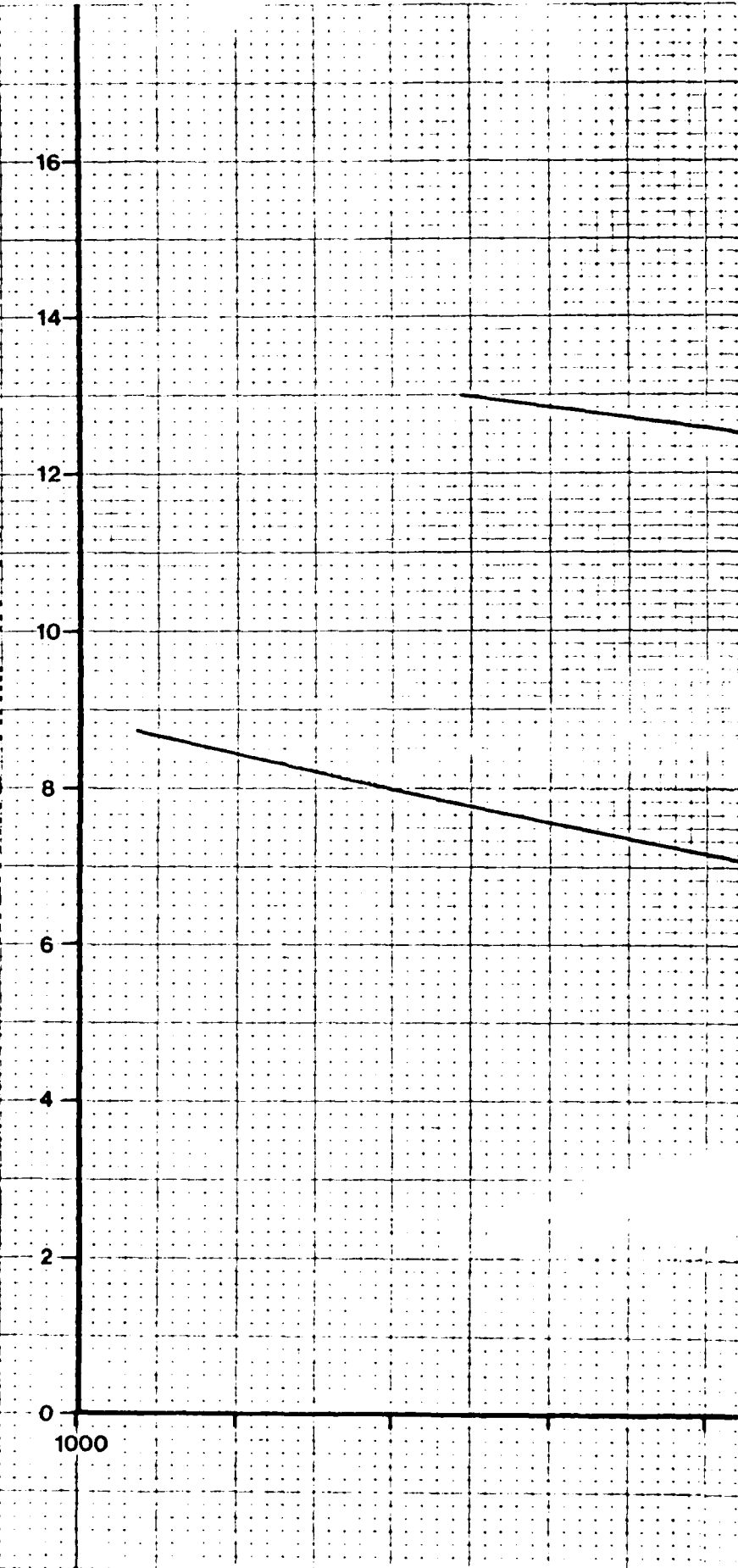
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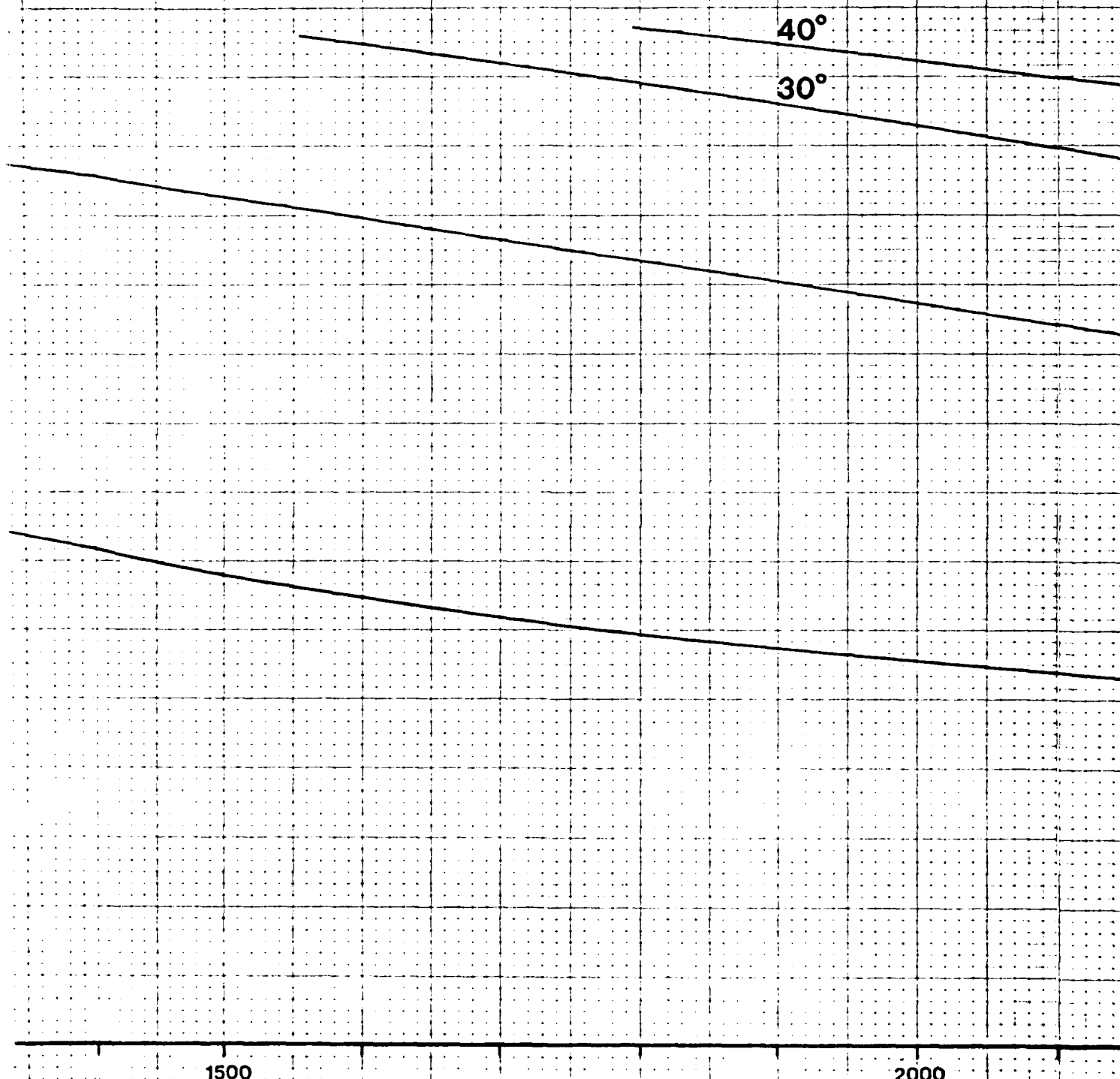
4

2

0

1000

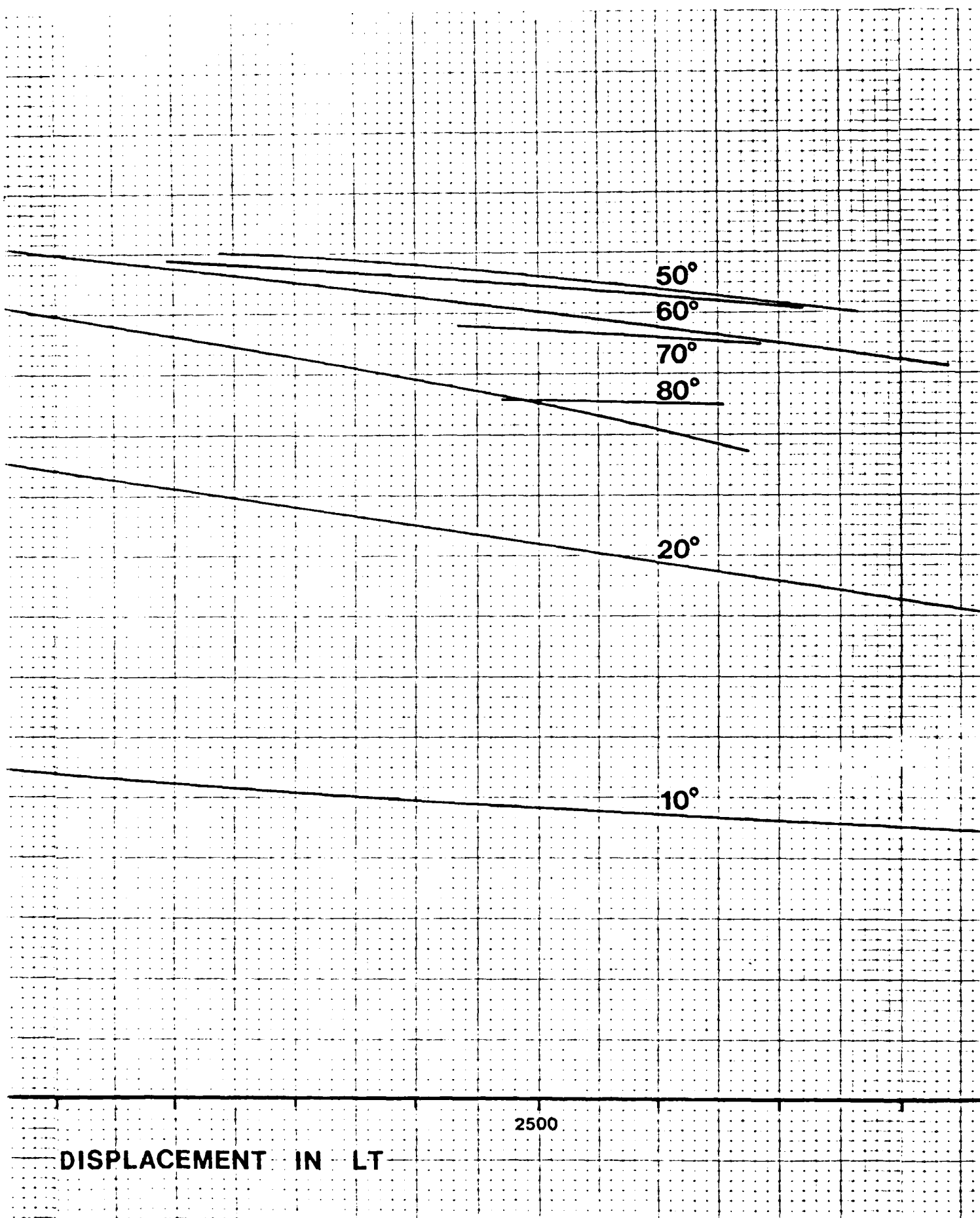




1500

2000

DISF



CROSS CUR

FOR OCEAN C

ASSUMED KG AT BASELINE

3000

3500

CURVES OF STABILITY

AN CONSTRUCTION PLATFORM

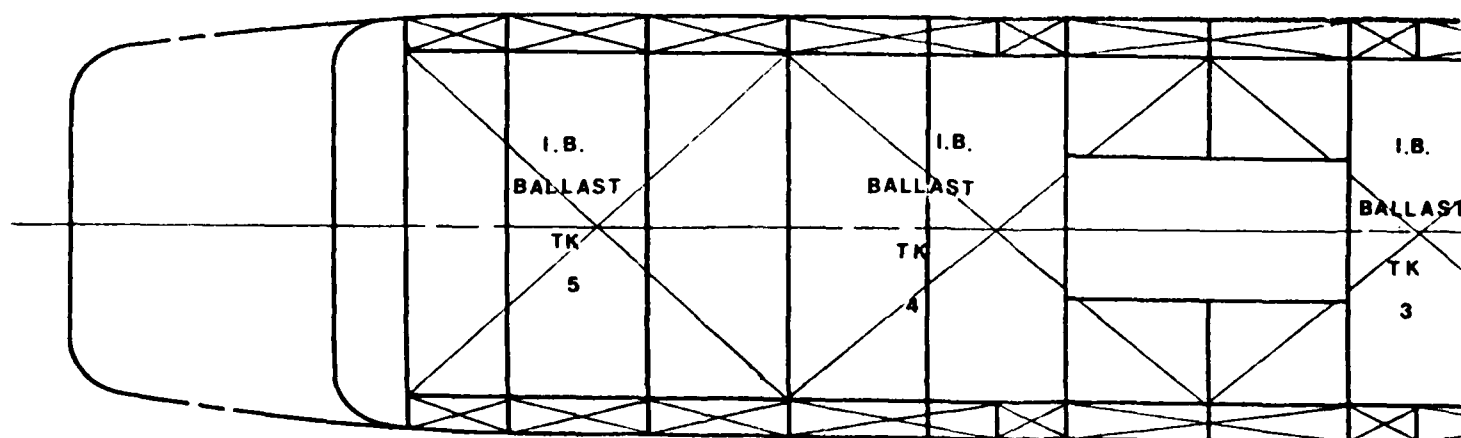
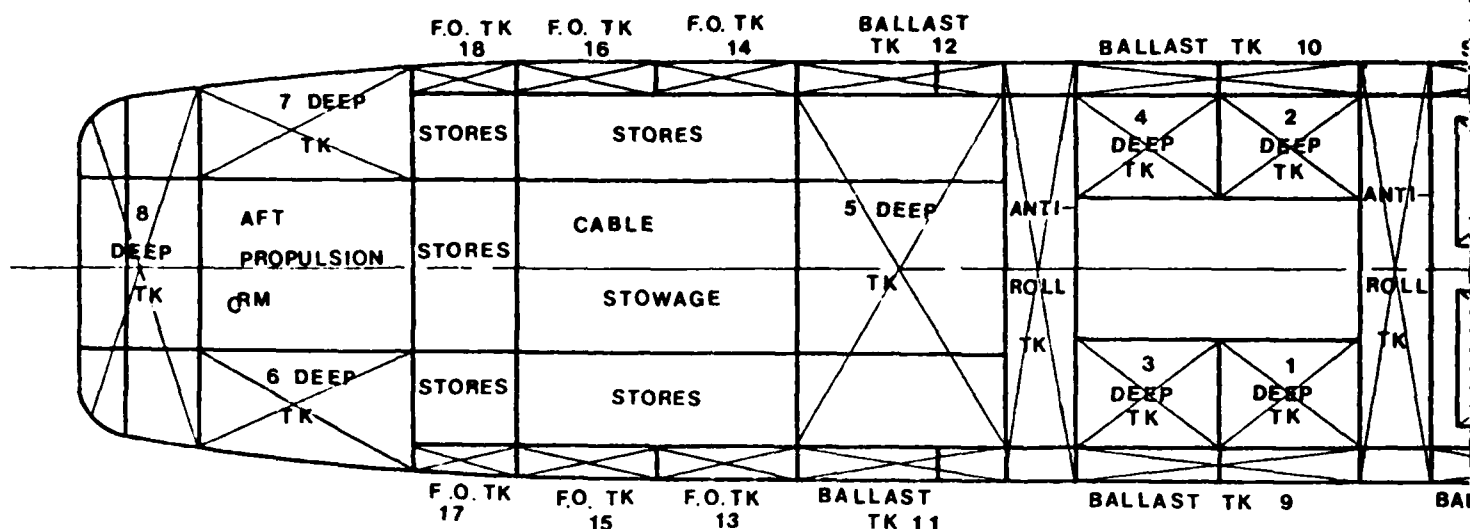
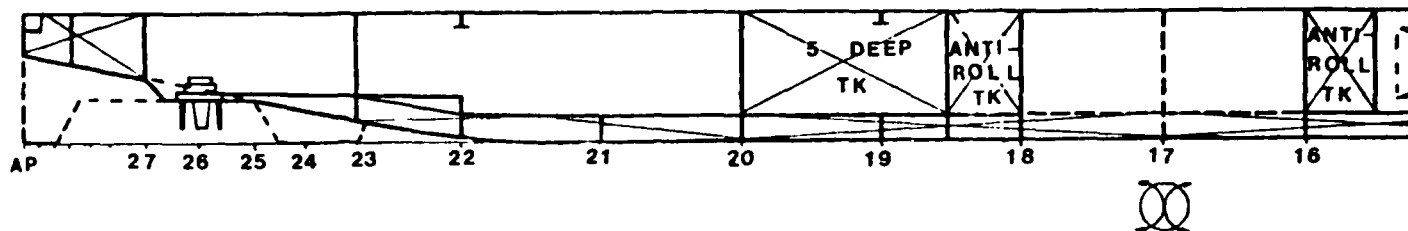
"SEACON"

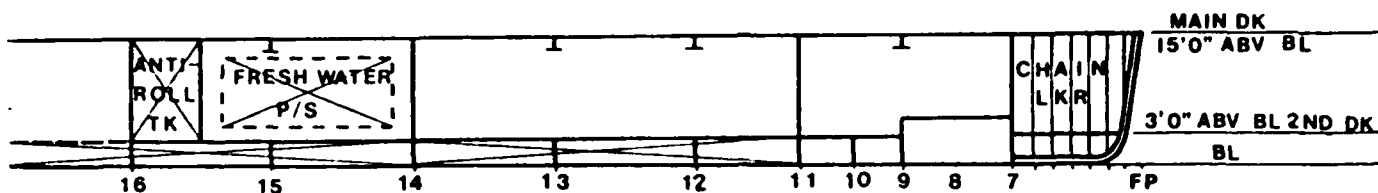
PRINCIPAL DIMENSIONS :

LENGTH	260'-0"
BREATH	48'-0"
DEPTH TO MAIN DK	15'-0"

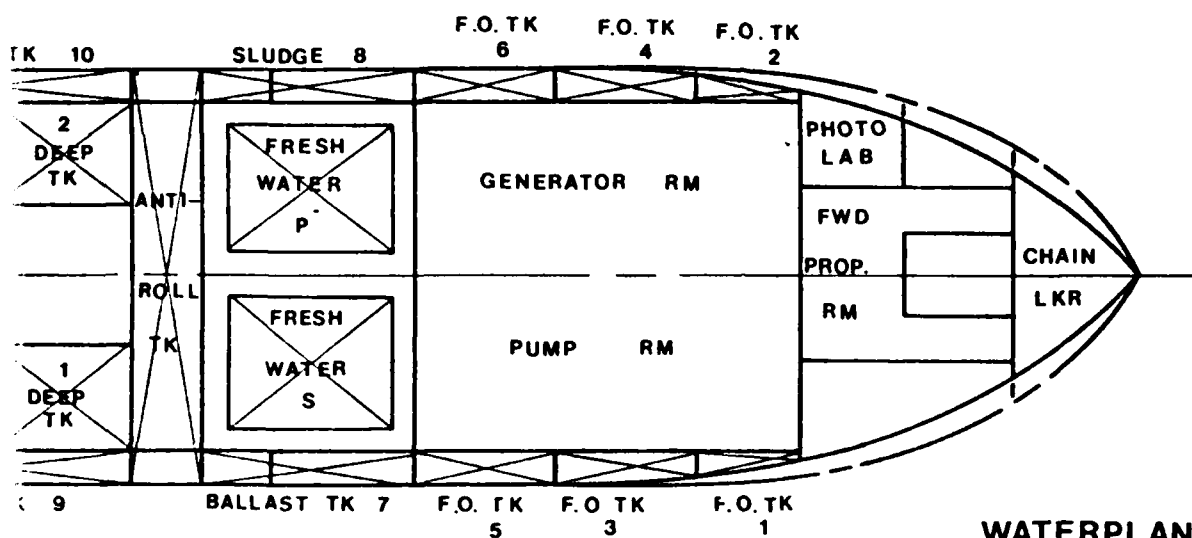
<u>HEELING ANGLE θ</u> <u>(DEG)</u>	<u>SIN θ</u>
--	--------------------------------

10	0.17365
20	0.34202
30	0.50000
40	0.64279
50	0.76604
60	0.86603
70	0.93969
80	0.98481

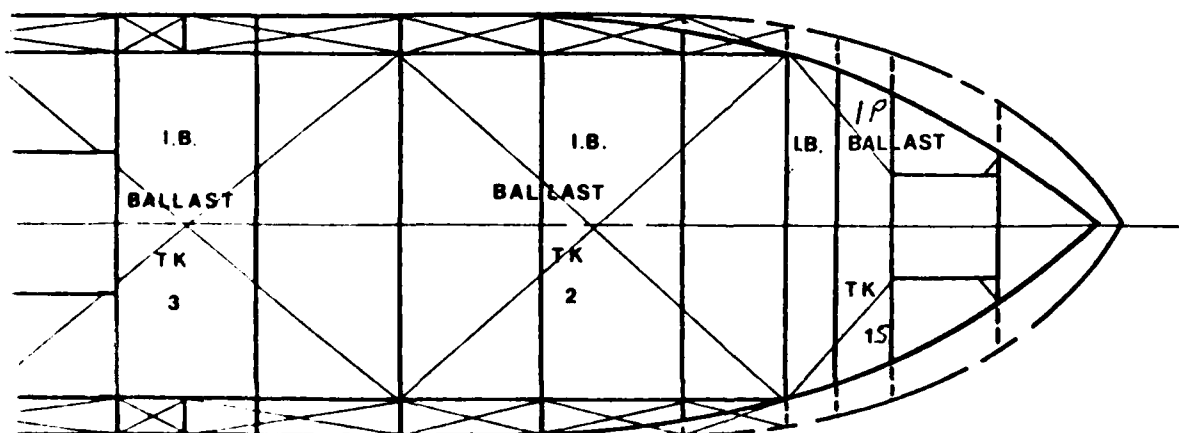




INBOARD PROFILE



**WATERPLANE
ABV 2ND DK**



**WATERPLANE
BE LOW 2ND DK**

MAIN DK
0" ABV BL

ABV BL 2ND DK
BL

PROFILE

OCEAN CONSTRUCTION PLATFORM
"SEACON"

L.B.P.	260' 0"
BREADTH	48' 0"
DEPTH TO MAIN DECK	15' 0"

IE
K

OK

COMPARTMENT CAPACITIES

J. J. HENRY CO. INC.

DATE 3-27-71 PAGE 7

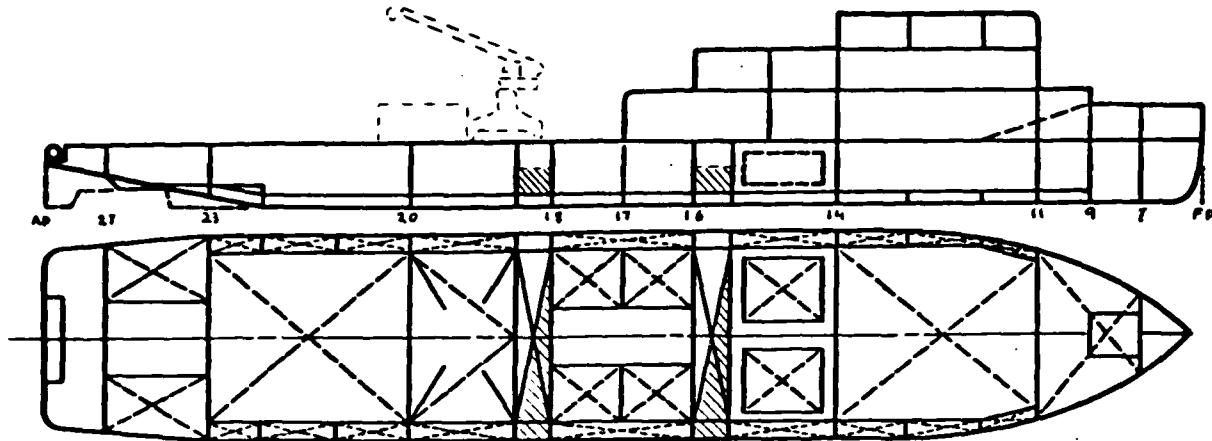
BY L.S.D. JOB NO. 1116

REF. LINE FOR V.C.G. B.L.

REF. LINE FOR L.C.G. F.P.

COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.G. ABV. BL. FT.	MOMENT ABV. BL. FT. TONS	L.C.G. ABT. F.P. FT.	MOMENT ABT. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (98%)								
#1 WING TK (S)	11~12		11.3	9.80	111	44.0	497	1
#2 (P)	11~12		11.3	9.80	111	44.0	497	1
#3 (S)	12~13		19.3	7.64	147	58.0	1119	2
#4 (P)	12~13		19.3	7.64	147	58.0	1119	2
#5 (S)	13~14		21.0	7.64	160	74.0	1554	2
#6 (P)	13~14		21.0	7.64	160	74.0	1554	2
#13 (S)	20~21		21.0	7.64	160	186.0	3906	2
#14 (P)	20~21		12.8	6.28	80	188.6	2414	1
#15 (S)	21~22		21.0	7.60	160	202.0	4242	2
#16 (P)	21~22		21.0	7.60	160	202.0	4242	2
#17 (S)	22~23		14.7	7.64	112	216.0	3175	2
#18 (P)	22~23		14.7	7.64	112	216.0	3175	2
SUB TOTAL			208.4	7.78	1622	131.9	27496	21
FRESH WATER (100%)								
F.W. TK (S)	15		56.3	8.25	464	94.0	5292	141
(P)	15		56.3	8.25	464	94.0	5292	141
SUB TOTAL			112.6	8.25	928	94.0	10584	282
LUB. OIL (98%)								
		39						
SLUDGE TK (100%)								
	14-15 1/2		38.6	7.80	301	94.0	3628	4
S W BALLAST (100%)								
#1 DR TK	7~11		45.2	2.48	112	29.8	1347	1571
#2	11~14		148.0	1.55	229	60.0	8980	6150
#3	14~17		136.6	1.50	205	103.4	14124	7144
#4	17~20		136.6	1.50	205	156.6	21392	7144
#5	20~23		99.4	2.51	250	201.4	20319	6576
#7 WING TK (S)	14-15 1/2		38.6	7.80	301	94.0	3628	4
#9 (S)	16~18		48.1	7.30	375	130.0	6253	5
#8 (P)	16~18		48.1	7.30	375	130.0	6253	5
#11 (S)	18 1/2~20		38.6	7.80	301	166.0	6408	4
#10 (P)	18 1/2~20		38.6	7.80	301	166.0	6408	4
#1 HOLD TK (S)	16~17		64.5	9.00	581	122.0	7869	66
#2 (P)	16~17		64.5	9.00	581	122.0	7869	66
#3 (S)	17~18		64.5	9.00	581	132.0	8901	66
#4 (P)	17~18		64.5	9.00	581	132.0	8901	66
#5 (S)	18 1/2~20		329.1	9.00	2162	166.0	51631	3657
#6 (S)	23~27		83.3	10.00	833	232.1	19334	157
#7 (P)	23~27		83.3	10.00	833	232.1	19334	157
SUB TOTAL			1541.5	6.27	9606	149.66	221551	12912

JOB NO.



REF LINE FOR L.C.G. F.P.

[illegible]

TRIM	
DRAFT AT LCF	= <u>5.57</u> FT
MOMENT TO ALTER TRIM 1"	= <u>408</u> FT-TS
LCB AFT OF FP	= <u>126.32</u> FT
LCG AFT OF FP	= <u>125.44</u> FT
TRIMMING LEVER	= <u>.88</u> FT
TRIM (BY SPERM , HEAD)	= <u>.26</u> FT
LCF AFT OF FP	= <u>131.27</u> FT
DRAFT AT FP = 5.70	AP # 5.44

STABILITY			
METACENTRE ABOVE BL	$\overline{KM} =$	<u>39.4</u>	FT
CENTRE OF GRAVITY ABV BL	$\overline{KG} =$	<u>14.7</u>	FT
METACENTRIC HEIGHT	$\overline{GM} =$	<u>24.7</u>	FT
ALLOWANCE FOR FREE SURFACE	=	<u>2.80</u>	FT
\overline{GM} CORRECTED	=	<u>21.90</u>	FT
\overline{GM} REQUIRED	=	_____	FT
MOMENT TO HEEL 1°	=	_____	FT-TS

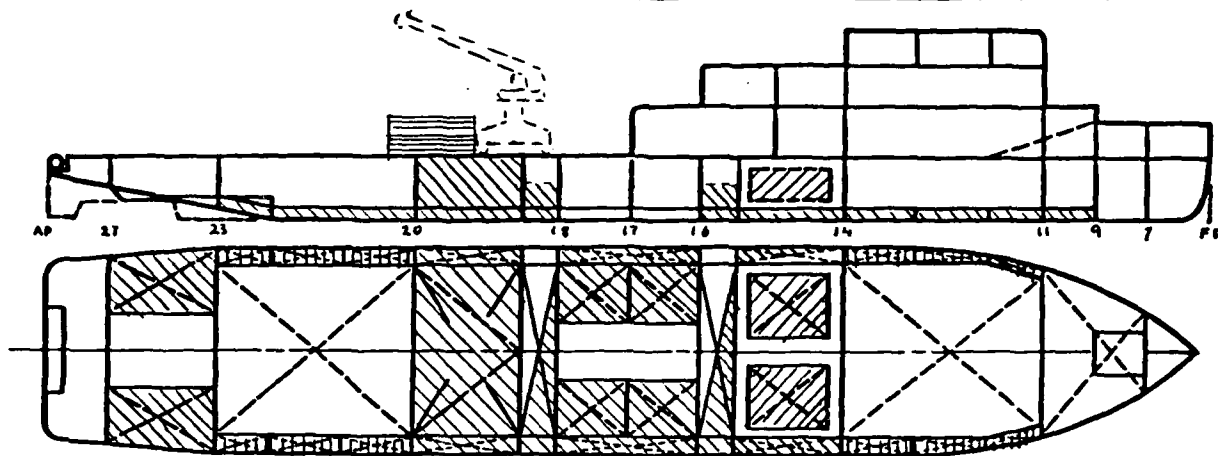
703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

DRAFTS AT DRAFT MARKS

FWD _____ **AFT** _____

MEAN

CONDITION OF VESSEL: <u>CAPACITY</u> <u>COND</u>		DATE: <u>3-3-80</u>	PAGE: <u>9</u>
CARGO <u> </u> % CONSUMABLES <u>100</u> % BALLAST <u> </u>		BY: <u> </u>	JOB NO. <u> </u>



REF LINE FOR V.C.G.

B.L.

REF LINE FOR L.C.G.

F.P

SYMBOL	COMPARTMENT	CUBIC FT TON	WEIGHT TONS	V.C.G. ADV. BL FT.	MOMENT ADV. BL FT TONS	LCG ABT. FP FT	MOMENT ABT. EP FT TONS	VERT. MOM OF F.S. FT TONS
	CREW & EFFECTS		6	24.00	144	62.0	372	
	STORES		45	20.00	900	26.0	1170	
	FUEL OIL		2084	7.78	1622	131.9	27496	21
	FRESH WATER		112.6	8.25	928	94.0	10584	282
	SLUDGE		19.3	4.35	84	94.0	1814	4
	S.W. BALLAST		1531.5	6.27	9606	144.7	221551	
	DECK LOAD		100	19.00	1900	176.5	17650	
	DEADWEIGHT		20228		15184		250637	307
	LIGHT SHIP		1459	14.70	21447	125.44	183017	4096
	DISPLACEMENT		34618	10.57	36588	13394	463633	4463

TRIM		STABILITY	
DRAFT AT LCF	= <u>12.16</u> FT	METACENTRE ABOVE BL	\overline{KM} = <u>23.0</u> FT
MOMENT TO ALTER TRIM 1"	= <u>516.4</u> FT-TS	CENTRE OF GRAVITY ABV BL	\overline{KG} = <u>10.57</u> FT
LCB AFT OF FP	= <u>131.61</u> FT	METACENTRIC HEIGHT	\overline{GM} = <u>12.43</u> FT
LCG AFT OF FP	= <u>133.94</u> FT	ALLOWANCE FOR FREE SURFACE	= <u>1.28</u> FT
TRIMMING LEVER	= <u>2.33</u> FT	\overline{GM} CORRECTED	= <u>11.15</u> FT
TRIM (BY STERN, HEAD)	= <u>130</u> FT	\overline{GM} REQUIRED	= _____ FT
LCF AFT OF FP	= <u>136.52</u> FT	MOMENT TO HEEL 1°	= _____ FT-TS
DRAFT AT FP = <u>11.48</u>	AP # <u>12.78</u>	GIANNOTTI & ASSOCIATES INC	

GIANNOTTI & ASSOCIATES, INC.

NAVAL ARCHITECTS

OCEAN ENGINEERS

MARINE ENGINEERS

703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

CAPACITY COND.

COMPARTMENT CAPACITIES

J. J. HENRY CO. INC.

DATE 1-2-75 PAGE 10

BY ED JOB NO. 115

REF. LINE FOR V.C.G. B.L.

REF. LINE FOR L.C.G. F.P.

COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.G. ABV. BL. FT.	MOMENT ABV. BL. FT. TONS	L.C.G. ABT. F.P. FT.	MOMENT ABT. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (98%)								
#1 WING TK (S)	11-12		11.3	9.80	111	44.0	497	1
#2 (P)	↓		↓	↓	↓	↓	↓	↓
#3 (S)	12-13		19.3	7.64	147	58.0	1119	2
#4 (P)	↓		↓	↓	↓	↓	↓	↓
#5 (S)	13-14		21.0		160	74.0	1554	
#6 (P)	↓		↓	↓	↓	↓	↓	↓
#13 (S)	20-21		↓	↓	↓	186.0	3906	↓
#14 (P)	↓		12.8	6.28	80	188.6	2414	↓
#15 (S)	21-22		21.0	7.60	160	202.0	1242	2
#16 (P)	↓		↓	↓	↓	↓	↓	↓
#17 (S)	22-23		14.7	7.64	112	216.0	3175	↓
#18 (P)	↓		↓	↓	↓	↓	↓	↓
SUB TOTAL			208.4	7.78	1622	131.9	27496	21
FRESH WATER (100%)								
FW TK (S)	15		56.3	8.25	464	94.0	5292	141
(P)	↓		↓	↓	↓	↓	↓	↓
SUB TOTAL			112.6	8.25	928	94.0	10584	282
LUB OIL TK. (98%)								
SLUDGE TK. (50%)								
	14-15 1/2		19.3	4.35	84	94.0	1314	4
S.W. BALLAST (100%)								
#1 DB TK	7-11		45.2	2.48	112	29.8	1327	
#2	11-14		149.0	1.55	229	60.0	5580	
#3	14-17		136.6	1.50	205	103.7	19124	
#4	17-20		136.6	1.50	205	156.6	21392	
#5	20-23		49.4	2.51	250	201.4	26019	
#7 WING TK (S)	14-15 1/2		38.6	7.80	301	94.0	3628	
#8 (P)	16-18		38.1		375	130.0	6253	
#9 (S)	↓		↓	↓	↓	↓	↓	
#10 (P)	18 1/2-20		38.6		301	166.0	6403	
#11 (S)	↓		↓	↓	↓	↓	↓	
#1 HOLD TK (S)	16-17		64.5	9.00	581	122.0	7849	
#2 (P)	↓		↓	↓	↓	↓	↓	
#3 (S)	17-18		↓	↓	↓	138.0	8901	
#4 (P)	↓		↓	↓	↓	↓	↓	
#5 (P)	18 1/2-20		329.1		2962	166.0	54631	
#6 (S)	23-27		23.3	10.00	833	232.1	19334	
#7 (P)	↓		↓	↓	↓	↓	↓	
SUB TOTAL			1531.5	6.27	9606	144.66	22155	

OCEAN CONSTRUCTION PLATFORM "SEACON"

TRIM & STABILITY CONDITION:
CAPACITY

DISPLACEMENT: 3640 LT
(INCLUDING 178 LT OF WELL)
KG CORRECTED: 1154 FT

CURVE OF STATICAL STABILITY

INCLUDING ACTUAL TRIM

WIND HEELING ARM (100 KTS)

HEELING ANGLE, DEG.

5

4

3

2

1

RIGHTING ARM, FT.

10

20

30

40

50

60

70

FULL LOAD COMPARTMENT CAPACITIES

J. J. HENRY CO. INC.

DATE 4-2-75 PAGE 13
BY YRG JOB NO. 1736

REF. LINE FOR V.C.G. B.L REF. LINE FOR L.C.G. F.P.

COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.G. ADV. BL. FT.	MOMENT ADV. BL. FT. TONS	L.C.G. ADV. F.P. FT.	MOMENT ADV. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (98%)								
#1 WING TK (S)	11-12		11.3	9.80	111	44.0	497	1
#2 (P)	11-12		11.3	9.80	111	44.0	497	1
#3 (S)	12-13		19.3	7.64	147	58.0	1119	2
#4 (P)	12-13		19.3	7.64	147	58.0	1119	2
#5 (S)	13-14		21.0	7.64	160	74.0	1554	2
#6 (P)	13-14		21.0	7.64	160	74.0	1554	2
#13 (S)	20-21		21.0	7.64	160	186.0	3906	2
#14 (P)	20-21		12.9	6.28	80	183.6	2414	1
#15 (S)	21-22		21.0	7.60	160	202.0	4242	2
#16 (P)	21-22		21.0	7.60	160	202.0	4242	2
#17 (S)	22-23		14.7	7.64	112	216.0	3175	2
#18 (P)	22-23		14.7	7.64	112	216.0	3175	2
SUB TOTAL			208.4	7.78	1622	131.2	27496	21
FRESH WATER (100%)								
F.W. TK. (S)	15		56.3	3.25	464	94.0	5292	141
F.W. TK. (P)	15		56.3	3.25	464	94.0	5292	141
SUB TOTAL			112.6	3.25	928	94.0	10584	282
SLUDGE TK. 50% P	14-15 1/2		19.3	4.35	84	94.0	1814	4
S.W. BALLAST								
#7 WING TK. (S)	14-15 1/2		33.6	7.80	301	94.0	3623	
#8 (P)	16-18		48.1	7.30	355	130.0	6253	
#9 (S)	16-18		48.1	7.30	375	130.0	6253	
#5 HOLD TK. (S)	18 1/2-20		329.1	9.00	2962	166.0	54631	
SUB TOTAL			463.9		4013		70765	

OCEAN CONSTRUCTION PLATFORM
"SEACON"

TRIM & STABILITY CONDITION:
FULL LOAD

DISPLACEMENT: 2542 LT
(INCLUDING 126 LT OF WELL)
KG CORRECTED: 11,64 FT

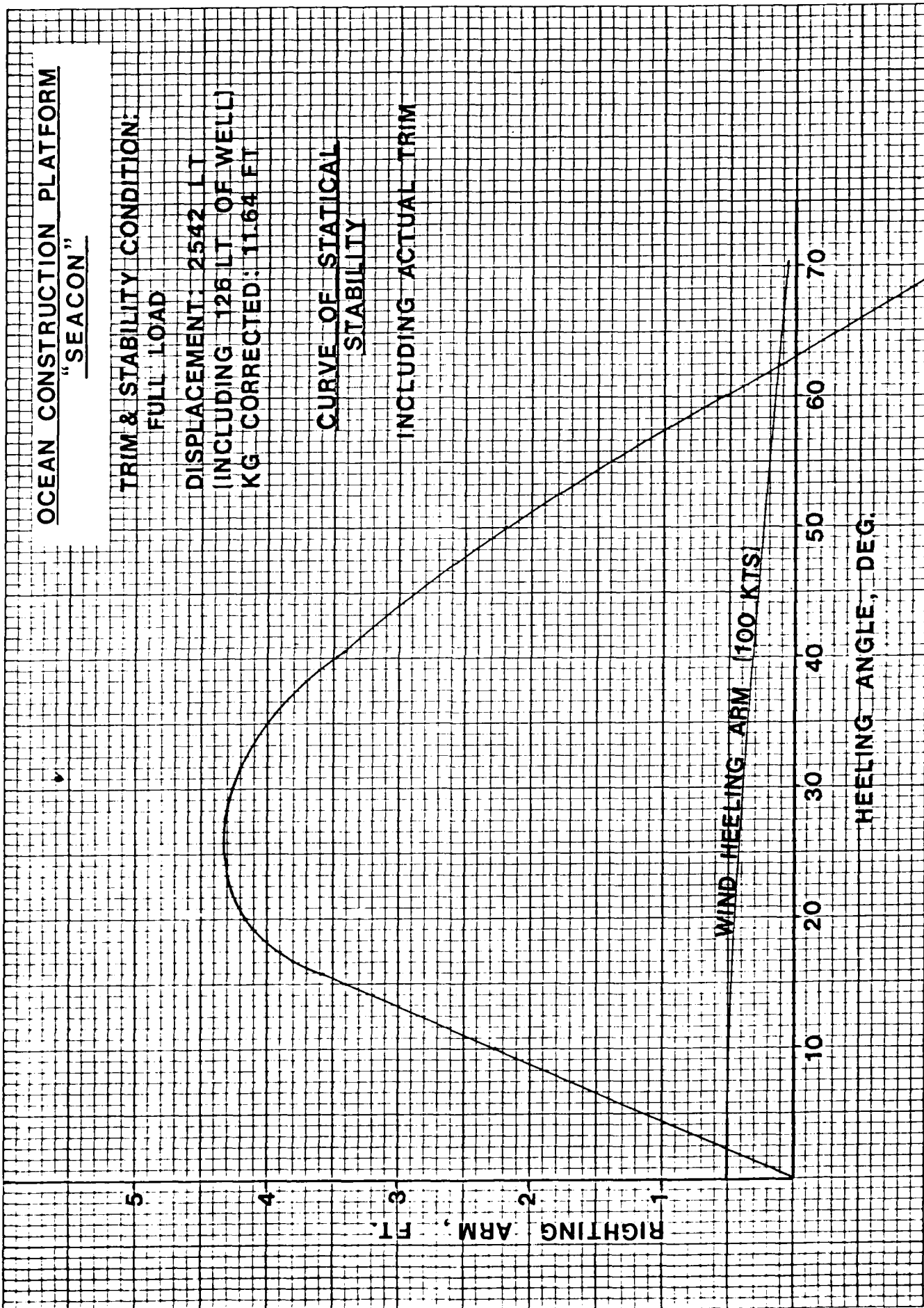
CURVE OF STATICAL
STABILITY

INCLUDING ACTUAL TRIM

WIND HEELING ARM (100 KTS)

HEELING ANGLE, DEG.

RIGHTING ARM, FT.



CONDITION 1A COMPARTMENT CAPACITIES

J. J. HENRY CO. INC.

DATE 4-2-75 PAGE 16

REF. LINE FOR V.C.G. B.L. REF. LINE FOR L.C.G. F.P.

BY PAO JOB NO. 1736

COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.G. ADV. CL. FT.	MOMENT ADV. BL. FT. TONS	L.C.G. ADT. F.P. FT.	MOMENT ADT. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (65%)								
#5 WING TK (S)	13-14		21.0	7.64	160	74.0	1554	2
#6 (P)	↓		↓	↓	↓	↓	↓	↓
#13 (S)	20-21		↓	↓	↓	186.0	3906	↓
#14 (P)	↓		12.8	6.32	80	188.6	2414	1
#15 (S)	21-22		21.0	7.60	160	202.0	4242	2
#16 (P)	↓		↓	↓	↓	↓	↓	↓
#17 (S)	22-23		14.7	7.64	112	216.0	3175	↓
#18 (P)	↓		↓	↓	↓	↓	↓	↓
SUB TOTAL			147.2	7.51	1104	169.8	24262	15
FRESH WATER (66%)								
F.W. TK (S)	5		37.5	7.00	263	94.0	3525	141
(P)	↓		↓	↓	↓	↓	↓	↓
SUB TOTAL			75.0	7.00	526	94.0	7050	282
S.W. BALLAST								
#7 WING TK (S)	14-15½		38.6	7.81	301	94.0	3628	
#8 WING TK (P)	16-18		43.1	7.81	375	130.0	6253	
#9 (S)	↓		↓	↓	↓	↓	↓	
#6 HOLD TK (P)	23-27		83.3	10.00	833	232.1	19334	
#7 (S)	↓		↓	↓	↓	↓	↓	
SUB TOTAL			301.4	9.01	2717	181.8	54802	
SLUDGE TK (50%)	14-15½		19.3	4.35	84	94.0	1914	4

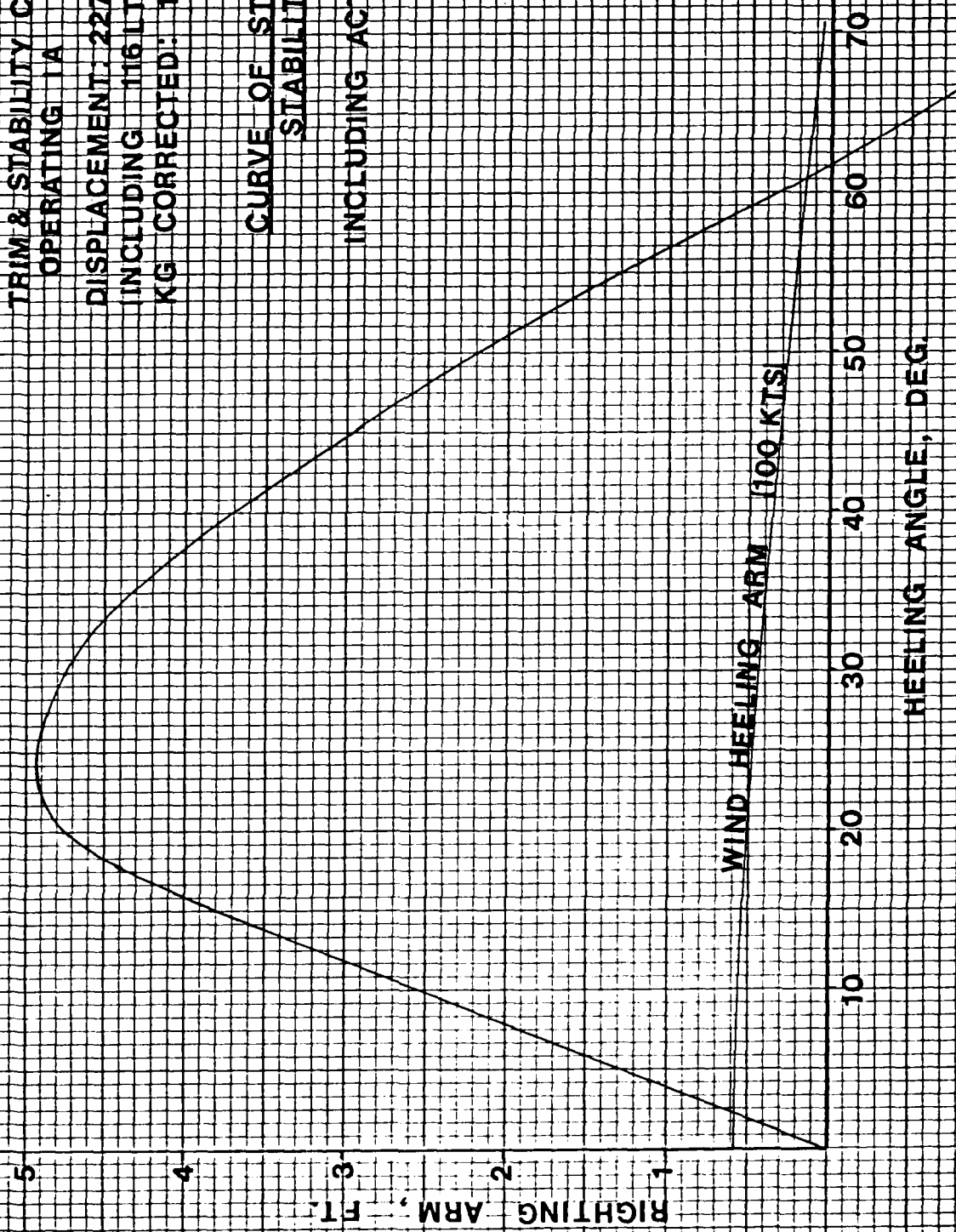
OCEAN CONSTRUCTION PLATFORM "SEACON"

TRIM & STABILITY CONDITION:
OPERATING 1A

DISPLACEMENT: 2270 LT
(INCLUDING 116 LT OF WELL)
KG CORRECTED: 14,83 FT

CURVE OF STATICAL STABILITY

INCLUDING ACTUAL TRIM



WIND HEELING ARM 100 KTS

HEELING ANGLE, DEG

RIGHTING ARM, FT

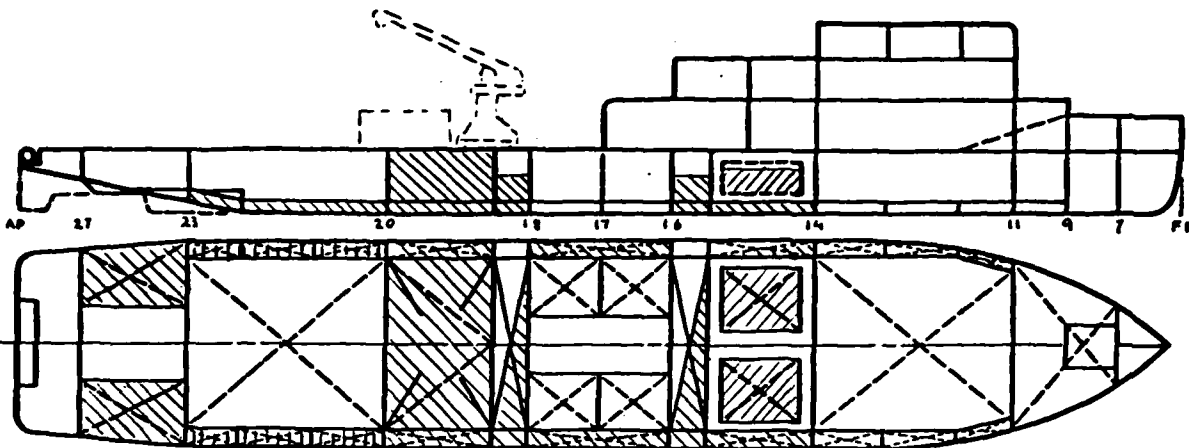
CONDITION OF VESSEL: <u>OPERATING</u> <u>II A</u>		DATE: <u>3-3-80</u>	PAGE: <u>18</u>
CARGO <u> </u> % CONSUMABLES <u>66</u> % BALLAST <u> </u>	BY: <u> </u>		JOB NO. <u> </u>

DATE: 3-3-80	PAGE: 18
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PAGE: 18

CARGO _____ % CONSUMABLES 66 % BALLAST

BY: _____ **JOB NO.** _____



REF LINE FOR V.C.G. B.L.

REF LINE FOR L.C.G. F.P.

SYMBOL	COMPARTMENT	CU FT TON	WEIGHT TONS	V.C.G. ADV.B.L FT.	MOMENT ADV.BL FT TONS	LCG ABT.FP FT	MOMENT ABT. EP FT TONS	VERT.MOM OF F.S. FT TONS
	CREW & EFFECTS		6	24.00	144	62.0	372	
	STORES		45	20.00	900	26.1	1170	
	FUEL OIL		105.2	7.45	784	201.1	21154	11
	FRESH WATER		75	7.00	526	94.0	7050	282
	SLUDGE		19.3	4.35	84	94.0	1814	4
	S.W. BALLAST		1080.3	6.43	6941	164.57	1777.84	
	CRANE AT FR 22						3070	
DEADWEIGHT			1330.8		9379		212414	297
LIGHT SHIP			1459	14.70	21447	125.44	183017	4096
DISPLACEMENT			2781.8	11.03	30771	141.78	395538	4393

TRIM		STABILITY	
DRAFT AT LCF	= <u>9.98</u> FT	METACENTRE ABOVE BL	\overline{KM} = <u>25.70</u> FT
MOMENT TO ALTER TRIM 1"	= <u>566.4</u> FT-TS	CENTRE OF GRAVITY ABV BL	\overline{KG} = <u>11.03</u> FT
LCB AFT OF FP	= <u>130.34</u> FT	METACENTRIC HEIGHT	\overline{GM} = <u>14.67</u> FT
LCG AFT OF FP	= <u>141.78</u> FT	ALLOWANCE FOR FREE SURFACE	= <u>1.58</u> FT
TRIMMING LEVER	= <u>11.44</u> FT	\overline{GM} CORRECTED	= <u>13.09</u> FT
TRIM (BY STERN, HEAD)	= <u>5.25</u> FT	\overline{GM} REQUIRED	= <u> </u> FT
LCF AFT OF FP	= <u>137.01</u> FT	MOMENT TO HEEL 1°	= <u> </u> FT-TS
DRAFT AT FP = 7.22	AP # 12.47	GIANNOTTI & ASSOCIATES INC	

DRAFTS AT DRAFT MARKS

FWD _____ AFT _____

MEAN

GIANNOTTI & ASSOCIATES, INC.

NAVAL ARCHITECTS

OCEAN ENGINEERS

MARINE ENGINEERS

703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

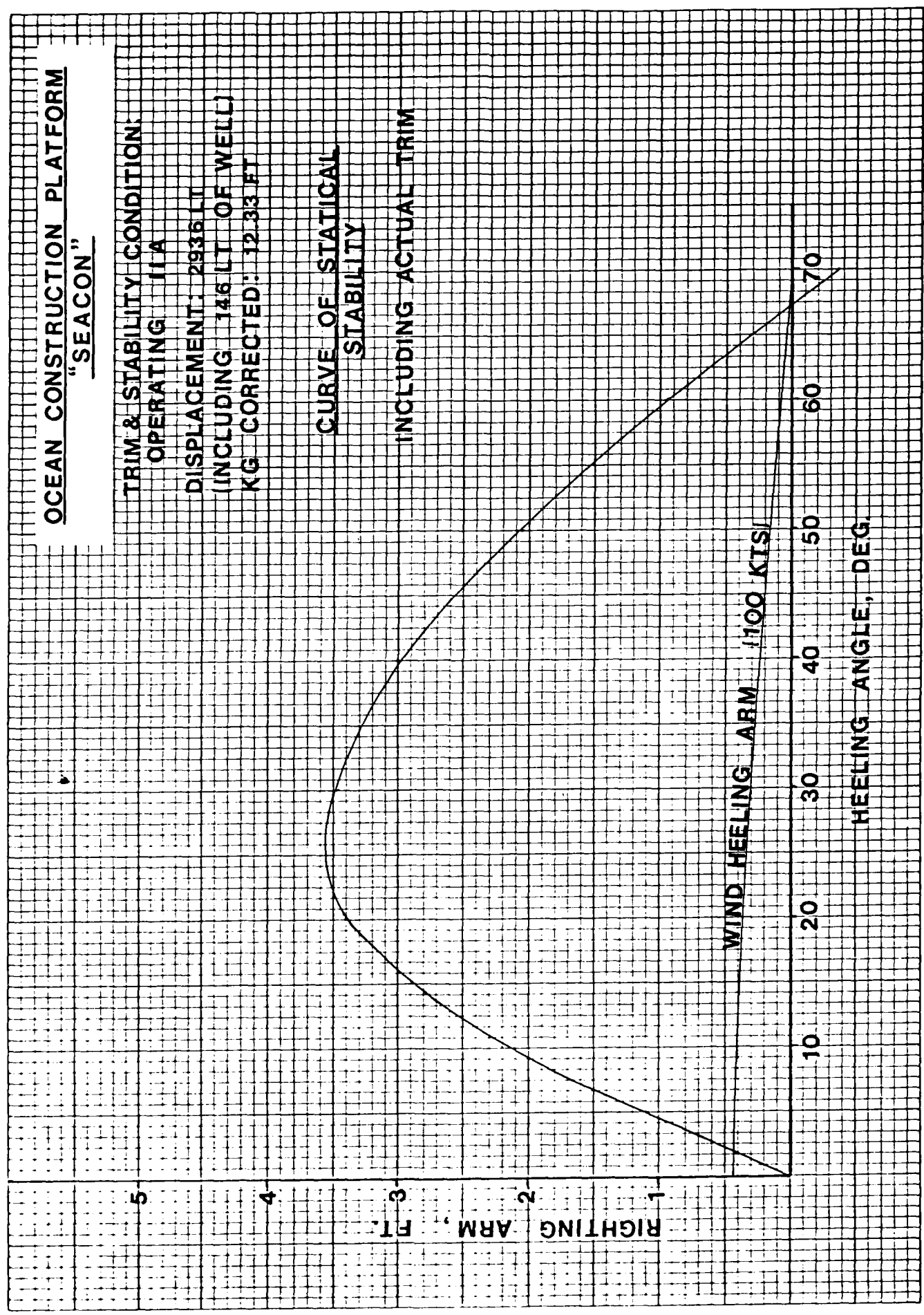
OCEAN CONSTRUCTION PLATFORM
"SEACON"

TRIM & STABILITY CONDITION:
OPERATING IIA
DISPLACEMENT: 2936 LT
(INCLUDING 146 LT OF WELL)
KG CORRECTED: 12.33 FT

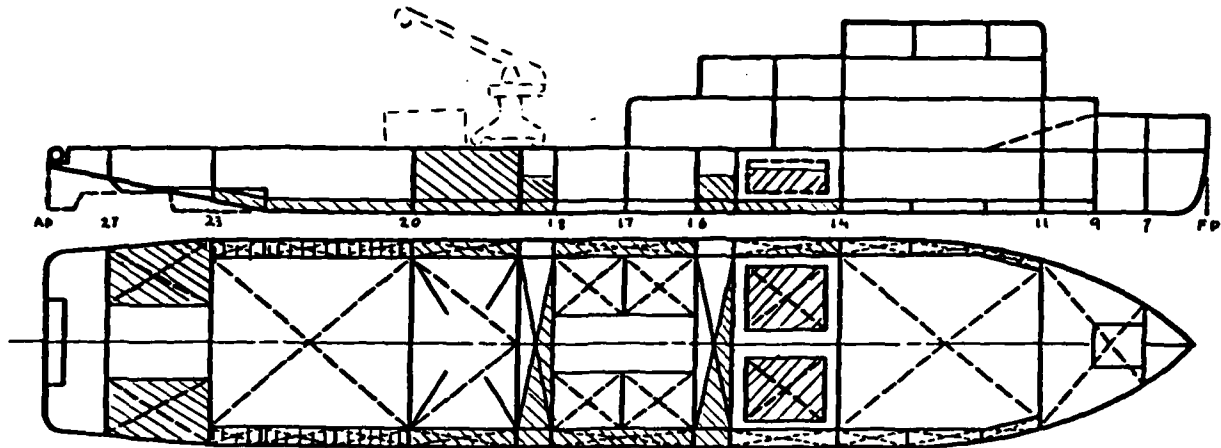
CURVE OF STATICAL
STABILITY
INCLUDING ACTUAL TRIM

WIND HEELING ARM 1100 KTS

HEELING ANGLE, DEG.



CONDITION OF VESSEL: <u>OPERATING COND</u> <input checked="" type="checkbox"/> <u>A</u>		DATE: <u>3-3-80</u>	PAGE: <u>20</u>
CARGO _____	% CONSUMABLES <u>66</u>	% BALLAST _____	BY: _____
			JOB NO. _____



REF LINE FOR V.C.G.

B.L.

REF LINE FOR L.C.G.

F.P.

[illegible]

TRIM		STABILITY	
DRAFT AT LCF	= <u>10.63</u> FT	METACENTRE ABOVE BL	\overline{KM} = <u>24.8</u> FT
MOMENT TO ALTER TRIM 1"	= <u>510.02</u> FT-TS	CENTRE OF GRAVITY ABV BL	\overline{KG} = <u>11.70</u> FT
LCB AFT OF FP	= <u>130.78</u> FT	METACENTRIC HEIGHT	\overline{GM} = <u>13.10</u> FT
LCG AFT OF FP	= <u>146.09</u> FT	ALLOWANCE FOR FREE SURFACE	= <u>1.47</u> FT
TRIMMING LEVER	= <u>15.31</u> FT	\overline{GM} CORRECTED	= <u>11.63</u> FT
TRIM (BY STERN, NOSE)	= <u>7.48</u> FT	GM REQUIRED	= _____ FT
LCF AFT OF FP	= <u>137.05</u> FT	MOMENT TO HEEL 1°	= _____ FT-TS
DRAFT AT FP = 6.69	AP # 14.18	GIANNOTTI & ASSOCIATES INC	

GIANNOTTI & ASSOCIATES, INC.
NAVAL ARCHITECTS
OCEAN ENGINEERS
MARINE ENGINEERS

703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

DRAFTS AT DRAFT MARKS

FWD _____ AFT _____

MEAN _____

OPERATING COND. II A, III A COMPARTMENT CAPACITIES

J. J. HENRY CO. INC.

DATE 4-2-75 PAGE 7.1

BY PAO JOB NO. 1136

REF. LINE FOR V.C.O.

REF. LINE FOR L.C.G.

COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.O. ADV. DL. FT.	MOMENT ADV. DL. FT. TONS	L.C.G. ADT. F.P. FT.	MOMENT ADT. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (48%)								
#13 WING TK (S)	20-21		21.0	7.64	160	186.0	3906	2
#14 (P)	↓		12.8	6.28	80	188.6	2414	1
#15 (S)	21-22		21.0	7.60	160	202.0	4222	2
#16 (P)	↓		↓	↓	↓	↓	↓	↓
#17 (S)	22-23		14.7	7.64	112	216.0	3175	↓
#18 (P)	↓		↓	↓	↓	↓	↓	↓
SUB TOTAL			105.2	7.45	784	201.1	21154	11
FRESH WATER TK (66%)								
F.W. TK (S)	15		37.5	7.00	263	94.0	3525	141
(P)	↓		↓	↓	↓	↓	↓	↓
SUB TOTAL			75	7.00	526	94.0	7050	282
SLUDGE TK (50%)	12-15 1/2		19.3	4.35	84	94.0	1814	4
S.W. BALLAST TK.								
#3 DR TK	14-17		136.6	1.50	205	103.4	14124	
#4	17-20		↓	↓	↓	156.6	21392	
#5	20-23		99.4	2.51	250	201.4	20019	
#7 WING TK (S)	14-15 1/2		38.6	7.80	301	94.0	3623	
#8 (P)	16-18		42.1	↓	375	130.0	6253	
#9 (S)	↓		↓	↓	↓	↓	↓	
#10 (P)	18-20		38.6	↓	301	166.0	4008	
#11 (S)	↓		↓	↓	↓	↓	↓	
#5 HOLD TK (S)	18-20		329.1	9.00	2962	166.0	50531	
#6 (P)	23-27		83.3	10.00	833	232.1	19334	
#7 (S)	↓		↓	↓	↓	↓	↓	
SUB TOTAL			1080.3	643	6941	164.57	177784	

OCEAN CONSTRUCTION PLATFORM
"SEACON"

TRIM & STABILITY CONDITION:
OPERATING IIIA

DISPLACEMENT: 3145 LT
(INCLUDING 156 LT OF WELL)
KG CORRECTED: 1288 FT

CURVE OF STATICAL
STABILITY

INCLUDING ACTUAL TRIM

WIND HEELING ARM 100 KTS

HEELING ANGLE, DEG.

5

4

3

2

1

RIGHTING ARM, FT.

10

20

30

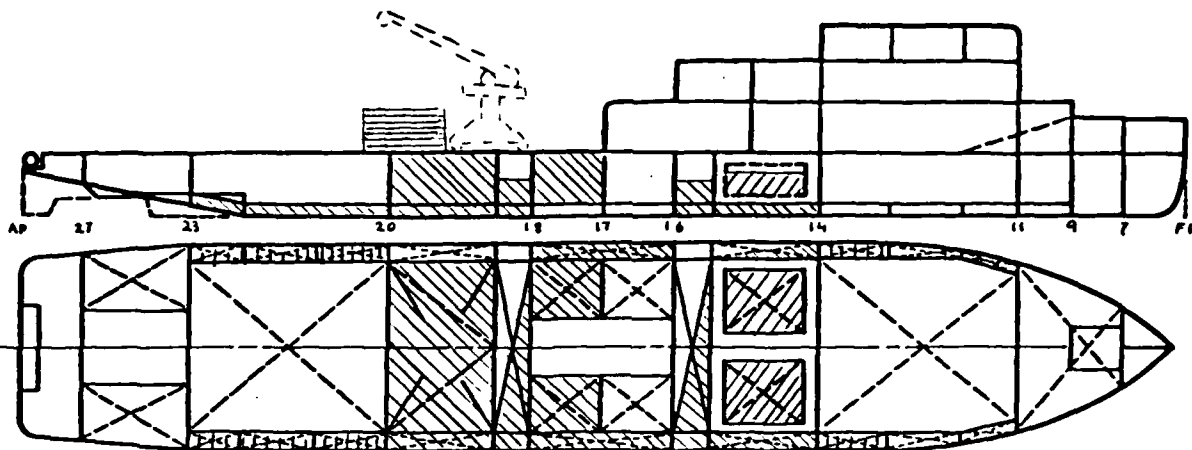
40

50

60

70

CONDITION OF VESSEL: <u>OPERATING</u> <u>IB</u>	DATE: <u>3-3-80</u>	PAGE: <u>23</u>
CARGO <u> </u> % CONSUMABLES <u>66</u> % BALLAST <u> </u>	BY: <u> </u>	JOB NO. <u> </u>



REF LINE FOR V.C.G. R.L.

REF LINE FOR L.C.G. F.P

SYMBOL	COMPARTMENT	CU FT TON	WEIGHT TONS	V.C.G. ADV.B.L FT.	MOMENT ADV.BL FT TONS	LCG ABT.FP FT	MOMENT ABT. EP FT TONS	VERT.MOM OF F.S. FT TONS
	CREW & EFFECTS		6	24.00	144	62.0	372	
	STORES		45	20.00	900	26.0	1170	
	FUEL OIL		1417	7.51	1104	1648	24262	15
	FRESH WATER		75	7.00	526	94.0	7050	282
	SLUDGE		19	4.35	84	94.0	1814	4
	DECK LOAD		100	19.00	1900	1765	17650	
	S.W. BALLAST		966	6.04	5835	1493	144102	
DEADWEIGHT			1358		10493		196420	301
LIGHT SHIP			1459	14.70	21447	125.44	188017	4096
DISPLACEMENT			2817	11.32	31888	134.71	379478	4397

TRIM		STABILITY	
DRAFT AT LCF	= <u>10.08</u> FT	METACENTRE ABOVE BL	\overline{KM} = <u>25.6</u> FT
MOMENT TO ALTER TRIM 1"	= <u>507.1</u> FT-TS	CENTRE OF GRAVITY ABV BL	\overline{KG} = <u>11.32</u> FT
LCB AFT OF FP	= <u>130.4</u> FT	METACENTRIC HEIGHT	\overline{GM} = <u>14.28</u> FT
LCG AFT OF FP	= <u>134.7</u> FT	ALLOWANCE FOR FREE SURFACE	= <u>1.56</u> FT
TRIMMING LEVER	= <u>4.31</u> FT	\overline{GM} CORRECTED	= <u>12.72</u> FT
TRIM (BY STERN, HEAD)	= <u>2.00</u> FT	\overline{GM} REQUIRED	= _____ FT
LCF AFT OF FP	= <u>137.03</u> FT	MOMENT TO HEEL 1°	= _____ FT-TS
DRAFT AT FP = 9.03	AP = <u>11.03</u>	GIANNOTTI & ASSOCIATES INC	

GIANNOTTI & ASSOCIATES, INC.

NAVAL ARCHITECTS

OCEAN ENGINEERS

MARINE ENGINEERS

703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

COMPARTMENT CAPACITIES

I B

J. J. HENRY CO. INC.

DATE 4-7-75

PAGE 24

BY J.B.G.

JOB NO. 1733

REF. LINE FOR V.C.G.

B.L.

REF. LINE FOR L.C.G.

F.P.

COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.G. ADV. BL. FT.	MOMENT ADV. BL. FT. TONS	L.C.G. ADV. F.P. FT.	MOMENT ADV. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (65%)								
#5 WING TK (S)	13-14		21.0	7.64	160	74.0	1554	2
#6 (P)	13-14		21.0	7.64	160	74.0	1554	2
#13 (S)	20-21		21.0	7.64	160	186.0	3906	2
#14 (P)	20-21		12.8	6.28	80	123.6	2414	1
#15 (S)	21-22		21.0	7.60	160	202.0	4242	2
#16 (P)	21-22		21.0	7.60	160	202.0	4242	2
#17 (S)	22-23		14.7	7.64	112	216.0	3175	2
#18 (P)	22-23		14.7	7.64	112	216.0	3175	2
SUB TOTAL			147.2	7.51	1104	164.8	24262	15
FRESH WATER (63%)								
F.W. TK (P)	15		37.5	7.00	263	94.0	3525	141
" " (S)	15		37.5	7.00	263	94.0	3525	141
SUB TOTAL			75.0	7.00	526	94.0	7050	282
SLUDGE TK (50%)(P)	14-15 1/2		19.3	4.35	84	94.0	1314	4
S.W. BALLAST								
#3 D.B. TK.	14-17		136.6	1.50	205	103.4	14124	
#4	17-20		136.6	1.50	205	136.6	21392	
#5	20-23		99.4	2.31	250	201.4	20019	
#7 WING TK. (S)	15-15 1/2		33.6	7.80	301	94.0	3623	
#8 (P)	16-18		43.1	7.30	375	130.0	6253	
#9 (S)	16-18		43.1	7.30	375	130.0	6253	
#3 HOLD TK (S)	17-18		64.5	9.00	531	138.0	8901	
#4 (P)	17-18		64.5	9.00	531	138.0	8901	
#5 (E)	18 1/2-20		329.1	9.00	2962	166.0	54631	
SUB TOTAL			965.5	6.04	5835	149.25	144102	

OCEAN CONSTRUCTION PLATFORM "SEACON"

TRIM & STABILITY CONDITION:
OPERATING 1 B

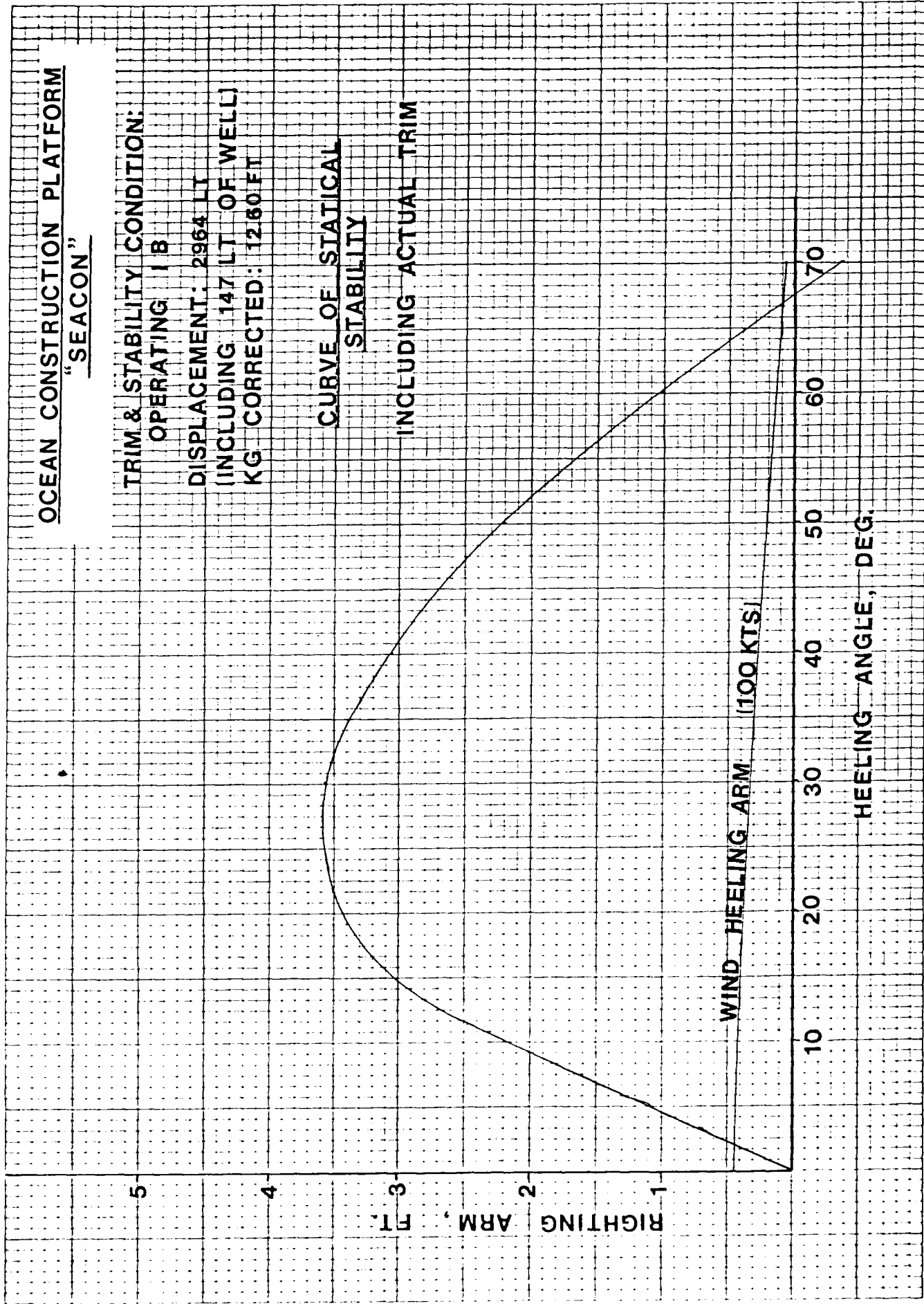
DISPLACEMENT: 2964 LT
(INCLUDING 147 LT OF WELL)
KG CORRECTED: 12860 FT

CURVE OF STATICAL
STABILITY
INCLUDING ACTUAL TRIM

WIND HEELING ARM (100 KTS)

HEELING ANGLE, DEG.

RIGHTING ARM, FT.



GIANNOTTI & ASSOCIATES, INC.
NAVAL ARCHITECTS
OCEAN ENGINEERS
MARINE ENGINEERS
703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

COMPARTMENT CAPACITIES

IC

J. J. HENRY CO. INC.

DATE 4-2-75 PAGE 27

BY VCG JOB NO. 1700

REF. LINE FOR V.C.G. B.L.

REF. LINE FOR L.C.G. F.P.

COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.G. ADV. DL. FT.	MOMENT ADV. DL. FT. TONS	L.C.G. ADV. F.P. FT.	MOMENT ADV. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (65%)								
#5 WING TK (S)	13-14		21.0	7.64	160	74.0	1554	2
#6 (P)	13-14		21.0	7.64	160	74.0	1554	2
#13 (S)	20-21		21.0	7.64	160	186.0	3906	2
#14 (P)	20-21		12.8	6.28	80	188.6	2414	1
#15 (S)	21-22		21.0	7.60	160	202.0	4242	2
#16 (P)	21-22		21.0	7.60	160	202.0	4242	2
#17 (S)	22-23		14.7	7.64	112	216.0	3175	2
#18 (P)	22-23		14.7	7.64	112	216.0	3175	2
SUB TOTAL			147.2	7.51	1104	164.8	24262	15
FRESH WATER (66%)								
F.W. TK (P)	15		37.5	7.00	263	94.0	3525	141
" (S)	15		37.5	7.00	263	94.0	3525	141
SUB TOTAL			75.0	7.00	526	94.0	7050	282
SLUDGE TK 50% (P)	14-15 1/2		19.3	4.35	84	94.0	1314	4
S.W. BALLAST								
#7 WING TK (S)	14-15 1/2		33.6	7.80	301	94.0	3628	
#8 (P)	15-16		43.1	7.30	375	130.0	6253	
#9 (S)	16-18		43.1	7.80	375	130.0	6253	
#10 (P)	18 1/2-20		38.6	7.80	301	166.0	6408	
#11 (S)	18 1/2-20		33.6	7.80	301	166.0	6408	
#1 HOLD TK (S)	16-17		64.5	9.00	531	122.0	7869	
#2 (P)	16-17		64.5	9.00	531	122.0	7869	
#3 (S)	17-18		64.5	9.00	531	138.0	8901	
#4 (P)	17-18		64.5	9.00	531	138.0	8901	
#5 (S)	18 1/2-20		329.1	9.00	2962	166.0	54631	
SUB TOTAL			799.1	8.68	6939	146.57	117121	

OCEAN CONSTRUCTION PLATFORM "SEACON"

TRIM & STABILITY CONDITION:
OPERATING IC

DISPLACEMENT: 2790 LT
(INCLUDING 140 LT OF WELL)
KG CORRECTED: 13.75 FT

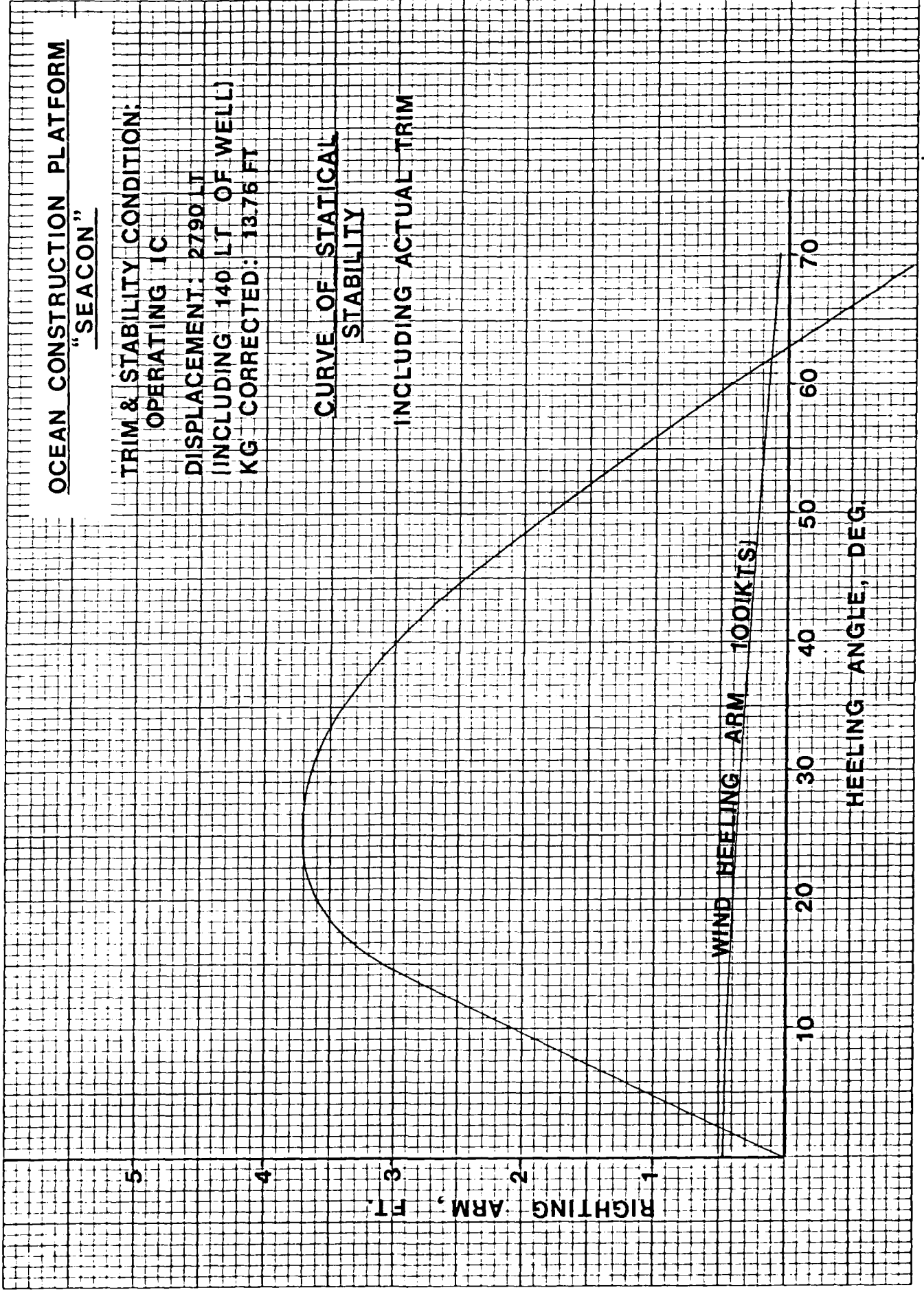
CURVE OF STATICAL STABILITY

INCLUDING ACTUAL TRIM

WIND HEELING ARM, 100(KTS)

HEELING ANGLE, DEG.

RIGHTING ARM, FT.



APPENDIX

SHIP OCEAN ENGINEERING PLATFORM

SERIAL NUMBER

0

DATE-04-03-75

INTACT CURVES OF STATICAL STABILITY

DISPL	HEEL	RA	TCB	VCB	DRAFT	TRIM
3639.8	0.000	0.0	0.000	6.374	12.042	1.877
	5.000	.94	1.409	6.435	12.039	1.894
CAPACITY COND.	10.000	1.654	2.601	6.588	12.150	2.273
	15.000	1.87	3.345	6.751	12.572	3.236
	20.000	1.971	3.947	6.941	13.181	4.657
	30.000**	2.029	*****	*****	15.068	7.318
K6 = 11.64	40.000	1.944	5.756	7.961	17.073	14.916
	50.000	1.403	6.201	8.401	20.134	23.769
	60.000	.591	6.443	8.743	24.873	37.445
	70.000	-.326	6.577	9.027	33.809	63.186
2542.0	0.000	0.0	0.000	4.588	8.704	0.733
	5.000	1.150	1.983	4.674	8.694	0.692
FULL LOAD	10.000	2.273	3.984	4.938	8.671	0.640
	15.000	3.400	6.000	5.385	8.622	0.515
K6 = 14.27	20.000	4.176	7.632	5.895	8.649	0.464
	30.000	4.274	9.492	6.740	8.620	1.254
	40.000	3.49	10.451	7.401	8.805	3.250
	50.000	2.218	*****	*****	*****	*****
	60.000	.589	11.413	8.501	8.069	12.755
	70.000	-1.19	11.604	8.909	7.159	23.983
2270.0	0.000	0.0	0.000	4.175	7.797	2.962
	5.000	1.28	2.214	4.271	7.788	2.924
OPERATING IA	10.000	2.565	4.445	4.565	7.766	2.875
	15.000	3.80	6.665	5.057	7.709	2.764
K6 = 14.83	20.000	4.779	8.565	5.651	7.625	2.821
	30.000	4.744	10.485	6.519	7.443	3.862
	40.000	3.68	11.388	7.140	6.999	6.088
	50.000**	2.201	*****	*****	6.343	8.815
	60.000	.356	12.347	8.251	4.569	17.436
	70.000	-1.343	12.552	8.692	1.645	31.371
2935.8	0.000	0.0	0.000	5.340	9.791	5.217
	5.000	1.10	1.726	5.416	9.788	5.232
OPERATING IIA	10.000	2.21	3.454	5.643	9.786	5.325
	15.000	2.86	4.922	5.965	9.901	5.942
K6 = 12.33	20.000	3.419	5.974	6.294	10.225	6.994
	30.000	3.481	7.351	6.925	11.185	10.521
	40.000	3.02	8.149	7.476	12.275	16.224
	50.000**	2.068	*****	*****	13.744	23.527
	60.000	.96	8.962	8.407	15.292	39.140
70.000		-.369	9.122	8.748	18.622	65.794

INTACT CURVES OF STATICAL STABILITY

DISPL	HEEL	RA	TCB	VCB	DRAFT	TRIM
3145.5	0.000	0.0	0.000	5.818	10.350	8.147
OPERATING IIIA	5.000	.87	1.582	5.887	10.358	8.238
	10.000	1.714	2.972	6.068	10.463	8.913
K _G = 12.88	15.000	2.11	4.063	6.307	10.752	10.216
	20.000	2.266	4.853	6.555	11.249	11.933
	30.000	2.038	5.929	7.050	12.598	16.977
	40.000	1.506	6.601	7.514	14.242	24.788
	50.000	.652	*****	*****	*****	*****
	60.000	-3.95	7.319	8.332	19.312	56.207
	70.000	-1.547	7.462	8.647	25.019	92.961
2964.0	0.000	0.0	0.000	5.303	9.953	2.588
OPERATING IB	5.000	1.10	1.716	5.378	9.949	2.600
	10.000	2.158	3.454	5.607	9.936	2.622
K _G = 12.60	15.000	3.02	5.007	5.948	10.001	2.911
	20.000	3.448	6.102	6.291	10.291	3.589
	30.000	3.581	7.590	6.972	11.182	6.186
	40.000	3.173	8.477	7.586	12.160	10.666
	50.000	2.222	*****	*****	*****	*****
	60.000	1.029	9.318	8.544	14.955	28.214
	70.000	-3.57	9.481	8.892	18.083	48.501
2790.0	0.000	0.0	0.000	5.007	9.433	1.928
OPERATING IC	5.000	1.05	1.821	5.087	9.429	1.931
	10.000	2.109	3.659	5.329	9.412	1.926
	15.000	3.10	5.448	5.724	9.410	1.991
	20.000	3.598	6.746	6.130	9.595	2.377
K _G = 13.76	30.000	3.643	8.390	6.880	10.208	4.300
	40.000	3.004	9.302	7.510	10.784	7.807
	50.000	1.792	*****	*****	*****	*****
	60.000	.434	10.190	8.522	12.130	22.237
	70.000	-1.154	10.364	8.892	13.602	39.024

DISPLACEMENTS AND CENTERS CORRECTED FOR WELL

	DISPL.	VCG	V.M.T.	L.C.G.	L.M.T.	F.S.
CAPACITY COND.						
	3461.8	10.57	36588	133.94	483633	4403
WELL	178	6.08	1082	130.00	23140	312
	3639.8		37670		486773	4715
			4715			
		11.64	42385			

FULL LOAD COND.						
	2414	12.84	30996	129.59	312830	4403
WELL	128	4.39	562	130.00	16640	312
	2542		31558			4715
			4715			
		14.27	36273			

OPERATING COND IA						
	2152.8	13.37	28780	134.77	290106	4096
WELL	116	3.97	460	130.00	15080	312
	2270		29240			4408
			4408			
		14.83	33648			

OPERATING IIA

	2789.8	11.03	30771	141.78	395538	4393
WELL	146	4.99	729	130.00	18980	312
	2935.8		31500			4705
			4705			
		12.33	36205			

OPERATING III A

	2989.5	11.70	34977	146.09	436736	4393
WELL	156	5.32	830	130.00	20280	312
	3145.5		35807			4703
			4703			
		12.88	40510			

OPERATING IB

	2817	11.32	31888	134.71	379478	4397
WELL	147	5.04	741	130.00	19110	312
	2964		32629			4709
			4709			
		12.60	37338			

OPERATING IC

	2650	12.46	33019	133.01	352477	4397
	140	4.77	668	130.00	18200	312
	2790		33687			4709
			4709			
		13.76	38396			

WIND HEELING ARM

$$HA = \frac{0.004 V^2 AL \cos^2 \theta}{2240 \Delta}$$

$$= HA_0 \cos^2 \theta$$

WHERE V WIND SPEED IN KTS
 A PROJECTED SAIL AREA
 L LEVER ARM FROM HALF DRAFT TO CENTER OF SAIL AREA
 θ HEEL ANGLE
 HA_0 HEELING ARM AT 0°

HA COND.	HEELING ANGLES							
	HA_0	10°	20°	30°	40°	50°	60°	70°
CAPACITY COND	0.303	0.294	0.268	0.227	0.178	0.125	0.076	0.035
FULL LOAD	0.519	0.503	0.458	0.389	0.305	0.214	0.130	0.061
IA	0.584	0.566	0.516	0.438	0.343	0.241	0.126	0.048
IIA	0.431	0.418	0.381	0.323	0.253	0.178	0.108	0.050
IIIA	0.389	0.377	0.343	0.292	0.228	0.161	0.097	0.046
IB	0.425	0.412	0.375	0.319	0.249	0.176	0.106	0.050
IC	0.462	0.448	0.408	0.347	0.271	0.191	0.116	0.054

BASED ON $V=100$ KTS

"PROMISE"

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DATE 4-1-75

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ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

PAGE 2-20

USC PROMISE

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	ABOVE BASE	MOMENTS	CENTER OF GRAVITY				REFERRED TO					
				FRAME NO. 17		PORT		STARBOARD					
REMOVALS													
GROUP 100													
SHELL PLATING													
PROPELLER FWD 28'x15'3"	428	-											
PROPELLERS AFT 2'x8'x15'3"	857	5.00	4285										
WHEEL OPENING 16'x32'x15'3"	7834	-											
SKES 17'x4'x14'x15'3"	4162	2.00	8323										
" 20'x2'x12'x15'3"	1530	-											
	14811	0.85	12608										
GROUP 101													
LOUIS'LS 4'x32'x12.8"	1638	.5	819										
" 2'x5'x12.8"	128	5.0	640										
CVK 10'x3'x15'3"	459	1.5	684										
" 32'x3'x15'3"	1469	1.5	2204										
FLOOR FR 17' 16'x3'x15'3"	734	1.5	1101										
FLOOR SKEG 4'x2'x13'x15'3"	918	2.0	1836										
	3346	1.38	7388										
GROUP 102													
LR 32'x15'x12.75"	6120	3.0	18360										
LOUIS'LS 32'x4'x15"	1428	2.75	3872										
LR 2'x20'x12.75"	714	5.00	3570										
	8242	3.13	23082										
GROUP 107													
MAIN DECK 32'x16'x12.75"	6528	15.0	97920										
STIFFERS 32'x7'x25"	5600	14.76	82600										
	12128	14.88	180520										
GROUP 111													
OIL LEVEL HOUSE													
SHUTTER 18'x8'x12" 2-	3456	33.0											
FLOUT 8'x8'x10"	640	23.10											
TACKLE 8'x8'x10"	640	23.0											
MISC TOP 21'x8'x11"	1848	37.0											
MISC.	416	34.12											
	7000	34.12	238840										
TOTALS, POUNDS													
TONS													

COMPUTED BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

PAGE 3-20

USS PROMISE

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY						REFERRED TO				MOMENTS
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17		REFERRED TO						
				FT	MOMENTS	PORT	MOMENTS					
REMOVALS												
GROUP 114												
END 17.												
RIG + STIFF. 12' x 16' x 20'	4800	7.5										
LOUSEL 20' x 12' x 8' x 9' x 12.75' x 4	3672	7.5										
LOUSEL STIFF. 8' x 3' x 4' x 11'	1056	7.5										
LOUSEL END 14' x 15'	8640	9.0	77760	36.0	311040							
	18168	8.21	149220	17.12	311040							
GROUP 115												
SHED												
COVER	5700	41.4				32.0						
FRAME	124200	11.4										
END (PLT. + STIFF.)	56880	20.75										
WEBS	18000	20.10										
VIALEWATY + RAILS	6400	27.50										
TRACIES	8000	21.00										
MISC.	5000	28.00										
	243980		8218840						7807360			
SUMMARY of REMOVALS												
GROUP 100	14311	0.85	12602						698114			
101	5346	1.38	7358						64570			
102	8292	3.13	25082						78540			
107	12122	14.88	180520									
111	7000	34.12	232840						602000			
114	18168		149220						311040			
115	243980		8218840									
	309675	29.72	8892498						7807360			
									7725544			
TOTALS, POUNDS												
TONS												

COMPUTING CHECKS

COMPUTING BY

**ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET
RAYSHIPS 5616A-2 (11-57)**

U.S.S. PROMISE

BUDGET BUREAU NO. 45-2281
REPORT-BUSHIPS-9291-4

page 4-20

2178

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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				FWD	MOMENTS	AFT	MOMENTS	PORT	STBD	MOMENTS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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**ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET
RAYSHIPS 4616A-2 (11-57)**

PROMISE S.S.N.

BUDGET BUREAU NO. 45-4281
REPORT-BUSHIPS-9291-4

02-9
3846

PAIK

CENTER OF GRAVITY										
DESCRIPTION	WEIGHT (Pounds) (Tons)	ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17			REFERRED TO			
				FWD	MOMENTS	AFT	MOMENTS	PORT	STBD	MOMENTS
REMOVALS										
GROUP 102										
DENUNCIATED MACHRY (2)	2240	17.0	38080	—	—	56.0	125'440			
AIR CONDITIONING FREIGHTS	1500	6.0	9000	28.0	132000	—	—			
505 PLUMBING INSTALL.	2240	17.0	38080	30.0	179200	—	—			
SIG MISC PIPING SYST.	10000	13.0	130000	34.0	640000	—	—			
S20 HOODLINE JOINING ANCHORS	3500	14.0	49000	120.0	420000					
										</

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BUDGET BUREAU NO. 45-2281
REPORT-BUSHIPS-9291-4.

U.S.S. PROMISE

PAGE 7-20.

DATE

CENTER OF GRAVITY										
DESCRIPTION	WEIGHT (Pounds) (Tons)	ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17			REFERRED TO			
				FWD	MOMENTS	AFT	MOMENTS	PORT	STBD	MOMENTS
REMOVALS										
GROUP 800										
LIFE RAFT (NINE)	200	28.0		64.0						
INCL. CADDIS	1000	21.5		47.0						
	1000	9.0		78.0						
	1000	9.0		52.0						
	600	11.0			93.0	55.800				
DIEIC COVERING	3000	15.0		80.0						
"	200	27.0		80.0	285.000					
INSULATION	3000	24.0		80.0						
NON STRUCTURAL BUDS & DODGES	20000	21.0		72.0						
EQUIPMENT FOR LIVING SPACES	6000	18.0		72.0						
GALLERY, WR & MESS	2500	18.0		110.0						

Online Shirts

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

PAGE 9-20

USS PROMISE

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY											
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17		REFERRED TO		PORT		STARBOARD		TOTALS	
GROUP 100													
SKES													
BOTT. PLG 14x12x11.3#	1071	2.50	2677			112.0	119952						
" (12x11x11.3#)	2876	4.00	11504			111.0	317236						
ELONGS 7.0x7x11.3#	750	6.00	4500			112.0	84000						
DOUBLES AT BOTT. 12x12x11.3#	29376												
" " 16x12x11.3#	2040												
BEULWARS 1/2 2x2x11.3#	42210	16.75	707018			20.5	865321						
TOTALS	78323	9.27	725699			17.73	1388493						
GROUP 102													
INNER BOTT. FR 7-9 10x12x11.3#	1836	5.00				110.0							
AT BOTT. END FR 9 10x12x11.3#	306	4.00				104.0							
SIDE BOTS FR 7-9 2x12x11.3#	734	4.00				110.0							
LONGER BOTT. STIFF 3x12x11#	396	5.00				110.0							
VERT. BOTT. STIFF 3x2x11#	66	4.00				104.0							
TOTALS	3338	4.67	15584			109.33	364948						
	1.49		6.96				162.92						
GROUP 107													
DOUBLES AT BOTT. 6x12x11.3#	7834	15.0	117504										
TOTALS	3.50		52.46										
TOTALS, POUNDS													
TONS													

Computing Center

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

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2025-02-25

DATE 3-24-76

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ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

PAGE 11-20
DATE 2-25-75

PROMISE

DESCRIPTION	WEIGHT (Pounds)	CENTER OF GRAVITY				REFERRED TO			
		ABOVE BASE	MOMENTS	FT	MOMENTS	POST	MOMENTS	FT	MOMENTS
GROUP 114									
LONG. WT BHD 32'x15'x15" (P)	7324	7.50				7.50			
BHD LONG. STIFF 58'x11" (P)	1760	7.50				7.50			
LONG. WT BHD 32'x15'x15" (S)	7324	7.50						7.50	
BHD LONG. STIFF 58'x11" (S)	1760	7.50						7.50	
TRANS. BHD FR. 12' 20'x15'x15"	6590	7.50			16.00				
BHD VERT. STIFF 4'x15'x11"	660	7.50			16.00				
NOZZLE/ANTI ROLL TR 12'x24'x26" FT.	7488	9.00	67392						
TRANS. BHD FR. 16' 40'x15'x15"	9180	7.50			16.00				
BHD VERT. STIFF 12'x15'x11"	1980	7.50			16.00				
TRANS. WT BHD 20'x15'x15"	2295	7.50							
TRANS. BHD 18' 24'x12'x16"	4306	9.00			16.0				
STIFF 8'x12'x11"	1056	9.00			16.0				
FW. TAIL TRANS. BHD 4'x15'x7.5"	5760	8.30			36.00				
FW. TAIL LONG. BHD 4'x18'x7.5"	6912	8.30			36.00				
FW. TAIL TOP R 2'x12'x15"	6912	12.00			36.00				
FW. TAIL STIFF 2'x15'x15"	6912	4.50			36.00				
TRANS. BHD VERT STIFF 4'x5'x7.5"	1650	8.30			36.00				
LONG. BHD 1' 4'x6'x7.5"	1980	8.30			36.00				
TRANS. TOP LONG. BHD 2'x5'x12"	1980	12.00			36.00				
TRANS. BHD 1' 4'x6'x7.5"	1980	4.00			36.00				
PAGE TOTALS, POUNDS	93819	8.04	674522		1474		1535561		
TONS	37.43		301.13				551.73		

COMPUTING SHEET

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BARGE "PROMISE"

DATE 4-1-75

[illegible]

CONFIDENTIAL

Accounting Practice

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

PAGE 14-20

BARGE "PROMISE"

DATE 2-26-75

DESCRIPTION	WEIGHT (Pounds) TONS	ABOVE BASE	CENTER OF GRAVITY				REFERRED TO FRAME NO. 88				REFERRED TO			
			MOMENTS	FT	MOMENTS	FT	MOMENTS	FT	MOMENTS	FT	POST	MOMENTS	FT	MOMENTS
ADDITIONS														
GROUP 300														
2-200KVA DIRECT CURRENT GEN	144000	6	864000				64	49216000			11	1584000		
EXH. FILING (2) 6" 120 LF	3450	5.5	18975				64	220800			11	37950		
MAIN SWITCH BOARD 75-4' 2' 2' 7'	67200	2.5	168000				22	1448400						
220/200 TRANSFORMER 1000A	105	4	420				64	6720			11	1110		
CABLE:														
T-52 200'	190	9	1710				32	6080						
T-54 110'	300		2700					4600						
T-6 1" 1'	76		734					282						
T-5 210'	80		720					2540						
T-20 180'	60		540					1920						
T-20 160'	260		2340					8270						
D-9 400'	170		15148					55104						
D-4 80'	10		90					340						
T-11 350'	70		630					2240						
T-20 180'	430		3870					13760						
T-20 180'	646		5814					20612						
T-100 60'	320		2430					8640						
T-200 40'	788		2592					9716						
T-10 40'	10		90					320						
SHORE POWER 10000'	1500	28.5	42750				22	33600						
LIGHTING 5' 2' 2' 1000'	1500	28.5	42750				22	33600						
LOOSE 10000'	2000	9	18000				32	64000						
TOTALS, POUNDS	224017							11188900						
TONS	10001	12.98	1797.70				49.94	4995				162200		

COMPUTED BY

CHECKING OFFICER

1000

16-20

BARGE "PROMISE"

DATE 6-26-75

[illegible]

At 961670003

0-70

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET
NAVSHP 4616A-2 (11-57)

U.S.S. PROMISE

BUDGET BUREAU NO. 45-4281
REPORT-BUSHIPS-9281-A

PAGE 17-20

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY				REFERRED TO			
		ABOVE BASE	MOMENTS	FT	MOMENTS	PART	MOMENTS	FT	MOMENTS
ADDITIONS									
GROUP 600									
LADDERS (INCL) (3) 01 LEV.	2200	32.0							
" " 3 HNDK	2900	21.0							
" " 2 HOLD	1950	9.0							
VEGET. LADDERS 1	100	40.0							
UNSTRUCT. BUID 02 LEV.	3500	40.0							
STRUCTS 01 LEV.	24000	31.5							
" 111 DK	52000	21.0							
PAINTING	5000	26.0							
DECK COVERING									
MAIN DECK 100'x40'x1.3"	5408	15.00							
01 LEVEL 76'x32'x1.3"	3162	27.00							
02 LEVEL 672 FT ² x 1.3"	874	36.00							
HULL INSULATION									
MN DECK 01 LEVEL 277'x12'x1.7"	2327	21.00							
01 ~ 02 249'x9'x1.7"	1380	31.50							
02 ~ TOP 150'x8'x1.7"	840	40.00							
01 DK 1500 FT ² x 0.7"	1053	27.00							
02 DK 1760'x0.7"	1232	36.00							
TOP DE HSE 612 FT ² x 0.7"	470	44.00							
WORK SHOP EQUIPMENT	10000	18.00							
EQUIPMENT FOR GALLEY	1800	18.00							
MESSROOM	3000	18.00							
FURNISHINGS FOR LIVING SPACES									
MN DK	13500	17.50							
01 LEVEL	11000	29.50							
TOTALS, POUNDS	147696								
TONS	65.94								
PAINTING									
TOTALS, POUNDS	147696								
TONS	65.94								
COMPUTING BY									

8795781

3926

5155

1569

3515358

73.80

65.94

147696

65.94

147696

65.94

147696

65.94

147696

65.94

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET
NAVSHPIS 6016A-2 (11-57)

U.S.S. PROMISE

BUDGET BUREAU NO. 45-R281
REPORT-BUSHIPS-9291-4

Page 19-20

0478

DESCRIPTION	WEIGHT (Pounds) <i>Lbs</i>	CENTER OF GRAVITY									
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17			REFERRED TO				
				FWD	MOMENTS	A/T	MOMENTS	PORT	STBD	MOMENTS	
ADDITIONS.											
GROUP 600 (CONT'D)											
CRANE RAIL 600' x 108'	64800	16.0					70.0		-		
CRANE	123200	29.0					28.0				
STEEL POWER	25000	13.3					128.3				
PAGE TOTAL, POUNDS	213000		4642850					11193100			
	75.09	21.80	2072.70				52.55	4997	-	-	
PAGE 6-3	95.09	21.80	2073								
6-2	6.08	29.70	181				194			1.12	7
6-1	65.44	23.20	1569				3926		0.06	4	
TOTALS, POUNDS	167.11	22.89	3823								
GROSS TOTALS							5.25	877		-	3
COMPUTED BY											

SHIP SEACONREF. LINE FOR VERTICAL CENTERS IS 0 FEET ABOVE MOLDED BASELINEREF. LINE FOR LONGITUDINAL CENTERS IS F.P.

ITEM	WEIGHT Tons	VERTICAL LEVER Feet	VERTICAL MOMENT Ft. tons	FWD LEVER Feet	FWD MOMENT Ft. tons	AFT LEVER Feet	AFT MOMENT Ft. tons
Tank top engine plating	.14	3.0	.42	32.0	4.48		
Cleats	.074	15.5	1.147	138.25	10.23		
Bullwark in way of Cleats	.14	15.83	2.22	141.15	19.76		
Bins	.25	7.0	1.75	2.06	5.15		
Pipe	.03	1.0	.03	36.7	1.1		
Platform	.23	9.0	2.07	23.0	5.29		
Door	.10	13.0	1.3	22.2	2.22		
Day tank	.10	9.0	.90	29.0	2.9		
Door	.10	30.5	3.05	110.0	11.0		
Door	.10	19.0	1.9	127.0	12.7		
False Floor	.57	28.0	15.96	106.0	60.42		
Scuttle	.04	15.0	.6	250.0	10.0		
Posts	.33	32.0	10.6	41.0	13.53		
Engines	4.82	4.5	21.69	228	1098.96		
Chain	8.93	7.0	62.51	9.0	80.37		
Total	16.024	7.94	127.2	8737	1400.0		

SHIP SEACONREF. LINE FOR VERTICAL CENTERS IS 0 FEET ABOVE MOLDED BASELINEREF. LINE FOR LONGITUDINAL CENTERS IS F.P.

ITEM	WEIGHT Tons	VERTICAL LEVER Feet	VERTICAL MOMENT Ft. tons	FWD LEVER Feet	FWD MOMENT Ft. tons	AFT LEVER Feet	AFT MOMENT Ft. tons
Rails	.52	25.8	13.416	32.0	16.64		
Winch plate & supports	5.60	25.94	145.3	44.04	246.6		
Cable trough	.53	30.3	16.1	26.75	14.18		
Fairleads	.44	27.0	11.88	14.0	6.16		
Frame for anchor	2.25	18	40.5	12.0	27.0		
Fairlead Foundation (bow)	1.8	25.13	45.23	14.0	25.2		
Fairlead & Foundation (stern)	2.12	16.0	33.92	260.0	551.2		
Doubler Plating	8.91	15.0	133.65	222.5	1982.5		
Winches	20.54	29.83	612.7	41.0	842.14		
Wine	2.76	30.5	84.18	44	121.44		
Engines 12V-71	4.40	4.5	19.8	228	1003.2		
Diesel Exhaust trunk	.30	47.0	14.1	66.0	19.8		
Cleats	.20	15.5	3.1	141.5	28.2		
Platform	.23	9.0	2.07	17.0	3.91		
Door	.10	13.0	1.3	15.2	1.52		
Day tank	.26	10.4	2.70	29.0	7.54		
False Floor	.11	28.0	3.08	112.0	12.32		
Door	.10	31.5	3.15	110.0	11.0		

REF. LINE FOR LONGITUDINAL CENTERS IS F.P.

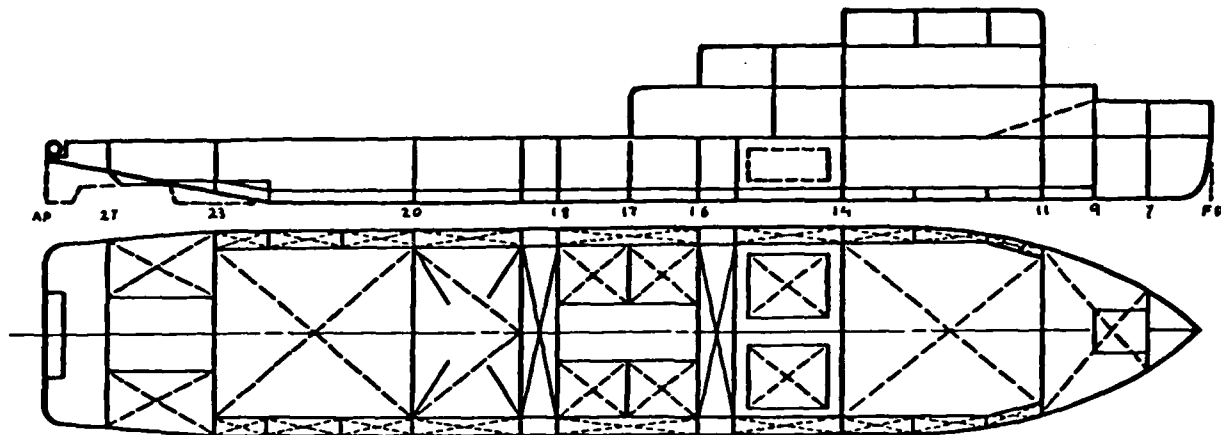
NAVSEA 9280/8-12 (REV. 7-74) PAGE 12 (Formerly NAVSHIPS 263-38)

REF. LINE FOR LONGITUDINAL CENTERS IS F.P.,

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10

JOB NO.



REF LINE FOR L.C.G.

DEADWEIGHT
LIGHT SHIP
DISPLACEMENT

LCF AFT OF FP = _____ FT
DRAFT AT FP = AP 4

FWD _____ AFT _____

MEAN

METACENTRE ABOVE BL	$\overline{KM} =$	_____	FT
CENTRE OF GRAVITY ABV BL	$\overline{KG} =$	_____	FT
METACENTRIC HEIGHT	$\overline{GM} =$	_____	FT
ALLOWANCE FOR FREE SURFACE	"	_____	FT
\overline{GM} CORRECTED	"	_____	FT
\overline{GM} REQUIRED	"	_____	FT
MOMENT TO HEEL 1°	"	_____	FT-TS

ANNAPOLIS, MARYLAND 21401

COMPARTMENT CAPACITIES

DATE _____

PAGE

BY

JOB NO.

Ref. Line for V.C.G.

Ref. Line for L.C.G.

[illegible]

END

FILMED

6-86

DTIC